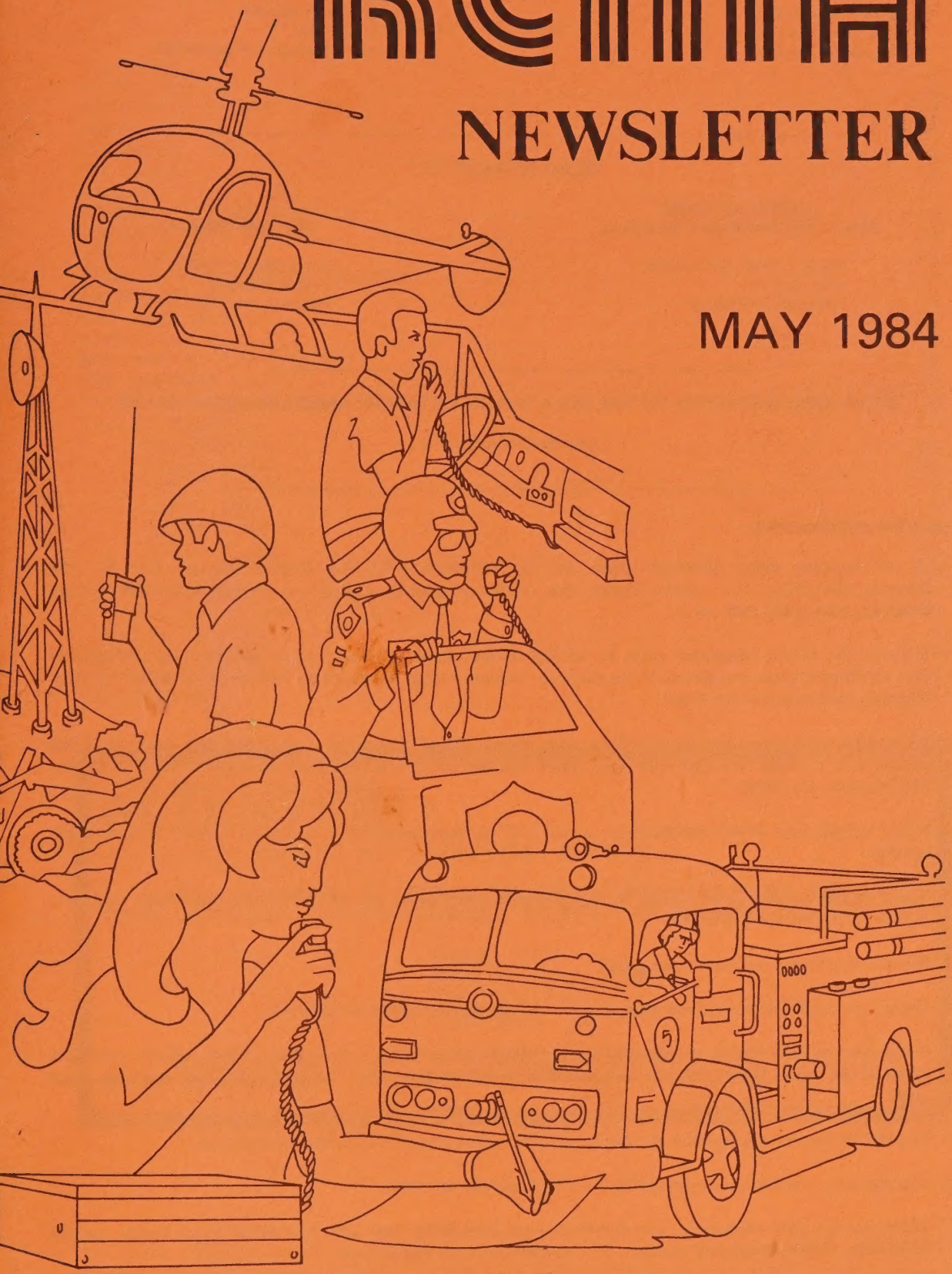
RCMA

NEWSLETTER



MAY 1984

FIRST NATIONAL AND INTERNATIONAL ORGANIZATION
OF MONITOR RADIO LISTENERS

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RCMA NEWSLETTER

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Silverado, CA 92676

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Williamsport, MD 21795

RCMA REPRESENTATIVES TO THE ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

Jerry Short (CA-OR-002)

FOR YOUR INFORMATION:

1. All club business, unless otherwise noted, must be addressed to R.C.M.A. General Manager, P.O. Box 542, Silverado, CA 92676. This includes matters that relate to renewals, changes of address, newsletter delivery problems, joining the club, etc.

2. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropriate, send input to RCMA, 1 West Potomac, Williamsport, MD 21795.

3. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA General Manager, P.O. Box 542, Silverado, CA 92676.

4. Please include your RCMA membership number with all correspondence to newsletter editors or club headquarters.

5. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

6. Please write on only one side of the paper.

7. Please don't combine in one letter several items that should go to different addresses.

8. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

9. Your RCMA membership number and expiration date appear on your newsletter mailing label.

10. You may join or renew your membership for ONLY one year at a time.

11. RCMA accepts paid advertising. For information on advertising rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P.O. Box 342, Silverado, CA 92676.

RCMA NEWSLETTER
Issue 99 May 1984
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RCMA, P.O. Box 4563, Anaheim, CA 92803

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ATTENTION -

TO ALL RCMA MEMBERS AND PROSPECTIVE MEMBERS -

PLEASE ADDRESS ALL CORRESPONDENCE (INQUIRIES ABOUT MEMBERSHIP, RENEWALS, ADDRESS CHANGES, DELIVERY OR RENEWAL PROBLEMS) TO:

CAROL RUTH
RCMA GENERAL MANAGER
P.O. BOX 542
SILVERADO, CA 92676

CORRESPONDENCE SENT TO RCMA'S ANAHEIM POST OFFICE BOX WILL STILL BE ANSWERED, BUT THERE WILL BE A 4 - 6 WEEK DELAY.

The RCMA Newsletter is published monthly by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, P.O. Box 4563, Anaheim, CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico–$18.50; Europe–$20.00, South Pacific and Asia–$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted © . Reproduction of any material in this newsletter is prohibited without prior written consent.

•• Calendar ••

Send notices of upcoming events for the Calendar section to:
John Clark, RCMA, P.O. Box 4653, Anaheim, CA 92803.
Please send notices well in advance of the Newsletter deadline.

Greater L.A. Area R.C.M.A. Eric Christensen CALA045 Presiding
P.O. Box 3926 Santa Fe Springs Ca 90670-1962

NOTE: Starting in February 1984 meetings will be held on the fourth Friday of the month.

April 25 FRIDAY Meeting at Mercury Savings and Loan, Valley View and Lincoln, Buena Park, Ca 8:00PM. 2nd Floor. Elevator in back.

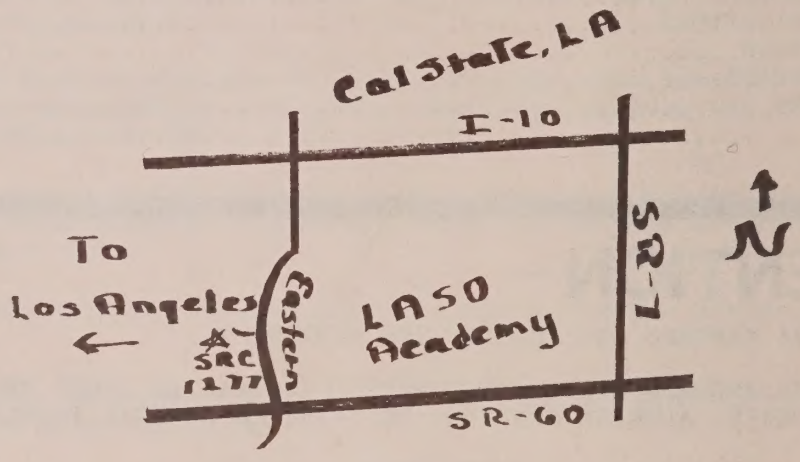
General Sharing session + tales of busted elevators

May 25 FRIDAY Tour Los Angeles County Sheriff Radio Center S.R.C.
1277 N Eastern Avenue, East Los Angeles. 8:00 P.M.

TOUR OF LOS ANGELES COUNTY SHERIFF RADIO CENTER (SRC)

Friday May 25, 1984 2000 Hrs. Be there!

Location: 1277 N. Eastern Ave., Los Angeles
Across the street from Sheriff Rd. (to LASO Academy)
Access road is marked with sign 1277 N. Eastern (on west side of Eastern. There are no markings such as LASO SRC or radio center. Drive up road to gate.)



Thomas Broths Map Page 45 sector d-3

June 22 FRIDAY Meeting at Mercury Savings and Loan, Valley View and Lincoln, Buena Park, Ca 8:00PM. 2nd Floor. Elevator in back. (This meeting may be relocated to The Orange Coast College Computer Center where there are 40 demonstration terminals.)

Discussion and demonstration of computerized frequency lists. Problems with creation, updating, correcting and selection by various criteria will be covered.

All Ohio Scanner Club
David B. Marshall, OH-146, President
50 Villa Road, Springfield, OH 45503

R.C.M.A. Chicago

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Meetings: NANCINI'S Resturant 5555 St Charles Road, Berkeley, Il
two blocks east of St Charles Road exit from Eisenhouer
Expressway Extention I-290 (phone 312 544 7277)

Saturday	April	14, 1984	1:00 PM
Saturday	June	9, 1984	1:00 PM
Saturday	August	4, 1984	1:00 PM
Sunday	August	19, 1984	Picnic/Field Exercise *
Saturday	September	22, 1984	1:00 PM
Saturday	November	10, 1984	1:00 PM

*Write for time, map, and details of this fun day

Visitors are welcome but please confirm the date in advance.

A SASE on file assures notification of tours and other item which may be scheduled on short notice.

R.C.M.A. Philadelphia Gerald M. Schoaf, Floyd Schoenberg, C. Willard Load
PA-036 PA-076 PA-164
P.O. Box 213, Upper Derby, PA 19082 (215) 356-1982

Meeting the first Monday of the month, 7:30 PM at

Saint James Church Next to "The Grange"
Corner of Myrtle Ave & Warwick Road
Haverford, PA 19083

Talk In On: CB Channel 9 GMRS 467/462.675 Hams 147.66/.06

Austin Radio Club

Meeting every 3rd Tuesday, 7 p.m. at Austin Public Library, 4th floor, Rm. B. For more information, contact Richard Quintanilla (TX-043)/Austin Radio Club, P.O. Box 5053, Austin, TX 78763

R.C.M.A. Connecticut Chapter

Contact Bill Moore CT 038 203-223-0840
950 Farmington Ave, New Britain, CT 06051

Southern New England Scanners Club

Contact Robert Murphy SNEC President 401-353-0208
P.O. Box 1591, Pawtucket, RI 02862

R.C.M.A. Minneapolis-St. Paul Area

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc) non members are welcome to attend.

CAPITOL HILL MONITORS
RCMA Local for D.C., MD, VA, & DEL

For further information, write to Alan Henney (MD-069), 6912 Prince Georges Ave, Takoma Park, MD 20912

Calendar continued

RCMA - WASHINGTON STATE CHAPTER

We have been meeting in Seattle for the past 6 + months. Meeting times have been irregular, although we do try to meet at least once each month. Interested RCMA members may call or write:

Spencer Bahner, P.O. Box 1432, Olympia, WA 98507
(206)866 - 1016

If you are in Seattle area, you may leave word with Mark Saran's answering service at (206)522-4747.

Please join us -
S. Bahner, WA-026

NEED BACK ISSUES OF THE RCMA NEWSLETTER?

Lots (Months/Year)	No. of Issues	Price
Sept 75 - June/July 76 (No Oct or Nov published)	7	$2.00
August - Dec 76 (No Oct published)	4	$3.00
Jan - June 77	6	$4.00
July - Dec 77	6	$4.00
Jan - June 78	6	$5.00
July - Dec 78	6	$5.00
Jan - June 79	6	$6.00
July - Dec 79	6	$6.00

1980-83 issues are available at $1.50 per copy.

Order Total	Include This Amount of Postage
$ 1.50 - $ 5	$1
$ 5.50 - $10	$2
$10.50 - $15	$3
$15.50 - $25	$4
$25.50 - $35	$5
Over $35	$6

Send your request & check/ M.O. (payable to RCMA) to Secretary Bill Ell, 2831 Hermanos St., Pasadena, CA 91107

THOUGHT waves

Ginny Slick, RCMA Assistant Editor, 1 West Potomic, Williamsport, MD 21795

I regret having to begin my column this month with news that Darrel Charest, our Aircraft Editor, will soon be leaving us to pursue other interests. Darrel stepped in when we desperately needed someone. The column had not run for a long time. He has done a fine job with it, and we are very sorry to see him leave.

Is there someone out there with knowledge in the field of aeronautics who would be interested in filling this position? I think that it is important for our editor to have this background in order to explain the terminology used on aircraft radio. I'd also prefer someone who will make a real effort to be responsive to our membership. If you'd like to give this job a try, please type a letter telling why you'd like the column, how you would approach it, and any background you have that would be of help to you in this effort.

I am saddened to announce the untimely death of my BC 101. Actually it's only slightly sick, but the manufacturer will no longer do repairs on it. My radio shop tried to fix it but they

needed a part that Bearcat no longer provides. I was told by the shopowner that if I sent back my 101, I would be able to get a new radio for a good price. I'm in no position to spend several hundred dollars for a new receiver, and if I were--- would I spend it with a company that does something like this?

If my receiver had passed the age of fifteen I might not be as upset, but one certainly doesn't expect to find one's radio beyond repair less than ten years after purchase. Now what do I do? Do I send the 101 back to Bearcat and receive a rebate that I can't afford to use? Do I keep it around and use it when it feels like working? Do I hope you'll come to my rescue? You bet I do!

Is there any company out there who might have old 101s that could be used for parts? How about you others in this position? Is there a chance we can pool our efforts to work on this problem? I'd like to hear from you on anything concerning the demise of the 101, or our rights as consumers of this product. I wonder what Bearcat is doing with all those 101s. Maybe they could start a parts pool.

That seems to be everything on my mind this month. If you have thoughts on these or other subjects, I hope that you'll

Write Soon,

Jimmy

YOUR THOUGHTS

1 West Potomac, Williamsport, MD 21795

To the Editor:

I've been a policeman for sixteen years. I, nor any of my co-workers have ever heard of "The American Police Academy" The assertion that the publication gives 'some thought or idea' of the opinion held by police personnel is misleading. Police rarely, if ever, comment about scanners. Most officers have only the vaguest idea of what a scanner is, or what it does. The FBI should have no fear from radio hobbyists if their investigations are conducted professionally and lawfully.

There are many 'Townwatch' organizations which enjoy excellent relations with police officers, even though the police are well aware of scanner use. I have met a handful of ill-informed officers who fear civilian monitoring of police calls.

Regarding Mr. Ard's problem with Electra and his BC-250: The one time I had to return my BC-250 to the factory, service was excellent, cheap and fast.

Regarding computers and scanners: Bearcat now offers a scanner which interfaces with the Commodore 6 .

John Henry Hart (PA-019)

To the Editor:

I agree with Casey, who wrote to you about a computer column. Since computers are so popular today, RCMA needs to publish a computer column. I would like for such a column to have programs for compiling grequency lists, 10-Codes, and other information on scanning or even SW. Please consider this column. I hope that you receive many letters from people in favor of this idea.

Guy Kroger (IA-002)

SCANNER ASSOCIATION OF NORTH AMERICA

SCAN™

240 Fencl Lane • Hillside, Illinois 60162

February 21, 1984

Dear Ginny:

I read with interest your comments in the February newsletter about the Police Times story concerning citizen use of scanners.

We should all be aware, however, that those comments are not the prevailing view of the law enforcement community as a whole. Both the International Association of Chiefs of Police and the National Sheriff's Association are on record as actively promoting citizen use of scanners.

The Neighborhood Crime Prevention Coordinating Committee is also promoting the concept of scanners as a crime prevention tool in their literature. They have provided close to a million copies of their pamphlet, which is distributed to citizens by local police departments and crime prevention officers.

If the Police Times story actually reflected prevailing police attitudes, I'm certain that a booklet suggesting citizens use scanners would not have had such a warm reception!

Best regards,

73, Bob Hanson

Robert A. Hanson
Managing Director

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

For an annual subscription to the ANARC Newsletter, send $5 to:
Joe Barr, 1500 Bunbury Drive, Whittier, CA 90601. ($8 overseas subscription.)

ANARCON 1984, The celebration of ANARC's 20th anniversary July 20-22 will be hosted by Ontario DX Association. For more information send a SASE to ODXA, 3 Camrose Cresent, Scarborough, Ontario M1L 2B5, Canada

Central Maryland Dx Association meets on the 2nd Monday of each month. for information contact Tony Kobylski (301) 563 0039

There has been a disruption of the usual ANARC feed of news hence a very short contribution this month. If we can obtain up to date information in the future this column will continue if not it probably will not.

Aircraft

Send private, commercial, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

Darrel Charest, 1804 D Oak Creek Lane, Bedford, TX 76021

May is finally here with those pleasant reminders that summer is close at hand. And if you haven't already done so, now is the time to dust off those golf clubs, dig out that fishing tackle and make ready that travel trailer. Don't forget your scanner to complete your preparations for those leisure hours. If you haven't already guessed, these are essentially my plans for the rest of the summer.

Several months back, I advised our General Manager that I was retiring once again and was making long range travel plans that would prevent me from continuing as our Aircraft Editor. Yet I hope to be of help to the new editor by offering contributions on a regular basis as many of you have done for me. I would also like to offer my sincere appreciation to all of you who have written with your comments, questions and frequency lists that helped me put together the aviation column. For without your assistance and advice the column would have little value.

As usual, last month's mail bag brought a number of interesting letters. One of these was from Rod Bourne, VA-012, and his letter offered an unusual but very innovative solution for determining the frequencies of recorded conversation while you are not available to monitor them directly. Here is Rod's method of operation.

> "I own a Sony Beta SL-2000 Video recorder and a HVC-2800 Video camera. I've used a Scan Record attachment with cassette but had always been dissatisfied with the arrangement as you could never tell, precisely, what frequency had been recorded. Applied video is the answer! One video camera, tripod, scanner, and video recorder solves all. Fast scan during playback eliminates dead time. Beta III speed gives five hours of unattended recording."

Like many of you, I own a VCR but not the camera. Those fortunate enough to own the camera have the means to use Rod's excellent idea. Rod also sent some frequency listings that appear at the end of this column.

Several days ago Brad, OH-138, called to ask if I could give him the company frequencies now in use by the ressurected Braniff Airline. Although I wasn't of much help to Brad, he gave me a good deal of usefull information concerning some of the methods he used in obtaining frequencies he was specifically interested in. Brad has been a frequent contributor to the Public Safety column, and now as a neighbor to DFW airport he may be expected to do the same for the Aviation Editor. Brad doesn't have equipment now that covers the aviation band, but expects to before long.

It has been a month since I gave up flying, and when I did so I knew I would miss many aspects of the activity. I knew I would miss the people. I knew I would miss the flying. What I didn't know, was that I would miss some of the side effects or minor problems that seem to go with the territory. For example, one of our students who shall remain nameless and a licensed Private Pilot managed to get lost after a mental lapse when immediately before he had shown some good judgement. He had done a good job of preparing and following his flight plan. His route was to take him from Ft Worth, west over Abilene then on to Big Spring. As he approached the Abilene VOR he observed Dyess AFB and a good deal of large military airplanes around the airport. He made the decision to go around the airbase to the southwest as a means of avoiding this traffic. In my opinion, a good decision. After passing clear of the air base, however, and for reasons he could never really explain, he continued southwest and eventually ended up a San Angelo airport instead of Big Spring. After landing, he refuelled and headed back to Ft Worth. And though he had

recomputed his return flight plan, after takeoff from San Angelo he took up an easterly heading instead of a more northeasterly course. As a result he became hopelessly lost, spent several hours groping around before he finally ended up at Abilene. By this time, darkness has arrived, he was overdue on his flight plan and yours truly was diverted from the bowling alley to the airport to help locate our lost airman. By the time I arrived at the airport our pilot had the presence of mind to call on the phone before we began an all-out search and rescue operation. Although the rest of the flight was uneventfull, we did have some trouble convincing his family that he could make the flight safely, and they remained until he arrived later that night.

Another incident occurred a few days later that resulted in an unusual situation. Our pilot this time was a Student preparing to complete her long solo cross country flight requirement. I had flown with this lady and found her to be an excellent student. Not only did she fly the airplane well, but also she seemed to possess judgement well beyond her experience level. On the day she had planned to make the flight the weather was poor, so it was delayed to the following week. After she checked with the Flight Service Station for weather reports, forecasts, winds etc. she was uncertain as to wether or not to make the flight. Since I was signing her logbook for authorization to make the flight, I too had a good look at all the conditions and assured her the flight could be made safely even though ceilings along the route we generally around 2500 above ground level. In spite of these assurances, she still seemed apprehensive and finally decided against the flight. As it turned out, her woman's intuition was far more accurate than the information provided by the FSS and National Weather Service, for within one hour the ceilings dropped dramatically and most unexpectedly. Very likely, had this young lady taken-off as we had advised, she most likely would have been in serious trouble. She also had no difficulty envisioning these potential problems, for she never came back to fly again.

From our Communications Profile Editor, Cliff Polkinghorn CAAL 029, comes a query concerning some unusual frequency assignments in the aviation band. While monitoring the Oakland Center, Cliff heard the Center changing aircraft to 134.97 (usually all frequency assignments would end in .00 or .05) so he was surprised to hear it used and amazed to hear the usual air traffic control communications when he listened to the channel. Cliff asked if I could explain to him and other readers the use of this "Strange number .97." And I'm glad he asked because we can expect to hear more of them in the coming months ahead. Most of our scanners are capable of receiving a total of 720 channels between 118.0 and 135.975, and this is true of the transmitters and receivers installed in aircraft today. Yet as long as 15 years ago the FAA pleaded there was an urgent need to expand the band from 360 to 720 channels and accomplishing this through the use of 25khz spacing. And within a few years avionics manufacturers redesigned, produced and marketed transcivers with the 720 channel capability. But only recently has the FAA began to make use of this capability in their equipment and services. As mentioned earlier, we can expect to hear these in more common use in the months ahead.

In a strange coincidence Edward Robert Sirovy, IL-004, sent a copy of an excerpt from the Federal Register where the FAA explains the need to begin using the 720 channel authorization in the airspace below 18,000. In the past all 720 channel assignments had been for aircraft operating above FL-180 presumably because of increased complexity in the aircraft, i.e. higher cost, better equipment therefore the cost of change out to 720 from 360 channels would pose less of a financial burden. Yet, as mentioned previously most two way radio equipment installed in small aircraft today have the 720 channel capability. Therefore it is only a matter of time before these odd frequencies will be in common use.

Rod Bourne, VA-012, wrote to say he had the opportunity to tour Jeppesen-Sanderson plant near Denver, Co. This firm publishes a wide variety of aviation charts, maps, and training materials and is the only serious competition for the U.S. Government maps and charts. I might also add that I've never seen anything but Jeppesen charts in the cockpit of any aircarrier. Rod went on to say that Jeppesen produces a variety of special charts including specific versions for many of our airlines such as Delta, American, Western, United, Federal Express to name a few. Most of these include ARINC frequencies and others related to a specific area. Some of these will be included at the end of this article.

Aircraft continued

From Wisconsin, Tom Heiderer, WI-006, wrote to give us information on Airline frequencies in the Milwaukee area. Tom writes that Midstate Airlines has applied for the following frequencies from the FCC: 464.4125/464.4375/464.4625/469.4125/469.4375/469.4625 adding that 464.4375 will be used simplex in Milwaukee for ramp operations. Tom also reports that Lakeland Airlines is now listed under 130.7 with Eastern and MVA, that Lakeland is no longer in Milwaukee.

Tom Heiderer also submitted a page of VHF-Aircraft frequencies for the Milwaukee area and hopefully it will reproduce well enough to be legible when it is reduced to Newsletter size.

"FREQUENCY ALLOCATIONS AND USAGE" (VHF - AIRCRAFT) MILWAUKEE, WIS.

AIRDROME CONTROL STATIONS
118.000 thru 121.400

118.000 – Mitchell Field–Approach/Departure
.600 – Mitchell Field–Approach
119.000
.100 – Mitchell Field–Tower
.650 – Mitchell Field–Departure
120.000 – Mitchell Field–Clearance Delivery
.500 – Timmerman Tower
121.000
.400

EMERGENCY (World Wide)
121.500

AIRPORT UTILITY
121.600 thru 121.925

121.600 – Waukesha–Ground Control
.700 – Timmerman–Ground Con.
.900 – Mitchell Field–Ground Con.
.950 ! (Instructional)

FAA FLIGHT SERVICE STATIONS
121.975 thru 122.675

121.975
122.000 – Chicago Flight Watch
.100 – MKE Flight Service(Rec.only)
.200 – MKE Flight Service
.400 – MKE Flight Service
.650 – MKE Flight Service
.675

AERONAUTICAL ADVISORY STATIONS
m–Multicom – u–Unicom
122.700 thru 123.100

122.700 – u–Fields without Towers
.725†
.750†–Private Aircraft(Air to Air)
.775 – Private Aircraft on the Ground
.800 – u –Fields without Towers
.825 – Aeronautical Enroute
.850 – m
.875 – Aeronautical Enroute
.900 – m – CAP (Search & Rescue)
.925°–State of Wisconsin
.950 –u–Fields with Towers
.975 – Aircraft above 10,000 feet
123.000 –u–Fields without Towers
.025 – Helicopters (Air to Air)
.050+–Johnsons Wax Heliport(Racine)
.075+
.100 – CAP (Search & Rescue)

FLIGHT TEST STATIONS
123.125 thru 123.575

123.125 a & i
.150 a & i
.175 i
.200
.225
.250 a
.275 a
.300 !
.325 a
.350 a
.375
.400 i
.425 a
.450–Commercial Aircraft(Air to Air)
.475 a
.500 ! – Metro Flying Club(W.Allis)
.525 a
.550 a
.575 a & i

AIRDROME CONTROL STATIONS
123.600 thru 128.800

123.600
.700 – Waukesha Tower
.800 – Mitchell Field–Approach/Departure
124.000
125.000
.100 – Chicago Center
.350 – Mitchell Field–Departure
126.000
.200 – Military Towers
.400 – Mitchell Field (ATIS)
.500 – Mitchell Field–Approach/Departure
127.000
128.000
.700 – Waukesha (Mitchell Field)
.800

AERONAUTICAL ENROUTE STATIONS
128.825 thru 132.000

128.825
.850
.875
.900
.925
.950
.975
129.000
.025
.050
.075
.100
.125
.150
.175
.200
.225
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.275
.300 – United (MKE Gate)
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.550 – Northwest (MKE Gate)
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.850 – Ozark (MKE Gate) also Comair
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.950 – Philip Morris (MKE Ops)
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.700 – Eastern (MKE Gate) also MVA & ~~Lakeland~~
.725
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.775
.800
.825
.850
.875
.900 – Republic (MKE Gate) also Simmons
.925
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.450 – Northwest (Minneapolis)
.475
.500 – Midstate (MKE Gate)
.525
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.575
.600 – Simmons (MKE Gate)
.625
.650
.675
.700
.725 – Tennaco (MKE Ops)
.750
.775
.800 – ARINC (Chicago) (San Francisco)
.825
.850
.875
.900 – Northwest (Minneapolis)
.925
.950
.975
132.000

AIRDROME CONTROL STATIONS
132.025 thru 135.975

132.025
.300 – Chicago Center
133.000
134.000
.750 – Chicago Center
135.000
135.975

NOTES:
°–To coordinate with Fed. & State Agencies
+–Exclusively Helicopters
†–Private Airfields
!–Assignment only for Aviation Instructional Stations
a–Aircraft Manufacturers Only
i–Itinerant Operations Only
m–Multicom
u–Unicom
VOR–Badger (Mitchell) 116.400

Compiled 1/80
Revised 1/84

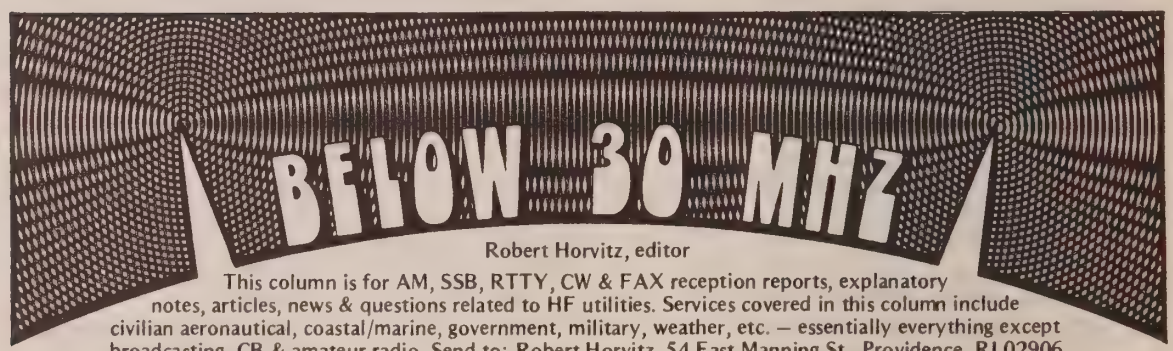
Aircraft continued

The following frequencies were provided by Rod Bourne, VA-012, after his visit to Jeppesen-Sanderson in Denver, Colo.

129.75		129.8	Other		
AGS*	ISO	BWI*	BDL*	129.32	AA
ATL	JAX	CHO	BOS	129.00	PI
AVL	LEX	CRW	CAK*	130.7	UA
BNA	MCO*	CVG	CLE*	129.3	UA
CAE*	MEM	DAY	CLT	133.75	PI
CHA*	MIA	DCA	CMI*	129.85	OZ
CHS	MYR	DEN*	DTW*	129.32	AA
DAB	OAJ*	GSP	EWR*	131.65	PI
DFW	RDU*	HTS	FNT	129.82	PI
FAY	SDF	LWB	FWA*	129.30	UA
GSO*	TPA	LYH	GRR*	129.75	UA
ILM	TRI	ORF	IAH*	131.32	PI
INT		PHL	LAN*	129.82	PI
		PIT	LGA*	131.65	PI
		RIC	MSY*	130.00	PAA
		ROA	ORD	130.85	CA
			PVD	130.00	AL/US
			SBN*	129.82	UA
			TOL*	129.82	PI

* Phone patch capability not available.
Phone patch service has been established in the Piedmont system whereby a pilot/flight may contact a station and have that station patch the flight through the "Dial Net" system to flight control.

See ya'll next month, then it's time to think about travelling.



Robert Horvitz, editor

This column is for AM, SSB, RTTY, CW & FAX reception reports, explanatory notes, articles, news & questions related to HF utilities. Services covered in this column include civilian aeronautical, coastal/marine, government, military, weather, etc. – essentially everything except broadcasting, CB & amateur radio. Send to: Robert Horvitz, 54 East Manning St., Providence, RI 02906

Piccolo

by Geoff Halligey: The multitone warbling signals referred to in your March column are undoubtedly "Piccolo". Piccolo is an encoding method used by the British Diplomatic Wireless service (as it was) for communication with embassies overseas. The system was developed by them and first demonstrated to the writer at a Ham Radio Exhibition in the early 1960s. The Diplomatic Wireless Service, now known as Government Communications Headquarters (GCHQ), had a demonstration stand at that exhibition and were giving Piccolo demonstrations and explanations to any interested visitor.

After a lapse of some 25 years the details are somewhat dimmed, but as far as I remember the essence of the system was the conversion of Morse Code or possibly Telex signals into 5 or 6 musical notes. These notes were transmitted without further conversion so that a listener hears a musical burbling rather like a tinkling fountain and a pan of water gently boiling on a stove. The BFO must be switched on to hear the transmission, which is non-rhythmic.

During the trial of the spy Geoffrey Pryme, from GCHQ at Cheltenham, it was stated that he had been known to receive messages from Moscow. These messages were transmitted as musical tones, using a decoder as illustrated in your March column.

Tones having a slower repetition rate and with fewer notes on the musical scale have been monitored here, and it is possible that these are of the Russian variety, although they may be another type of Piccolo. Both types are easily distinguished from the mark/space tones of RTTY.

Below 30 MHz continued

Any multitone signal with a distinct rhythmic beat is probably a press photo, weather chart or other facsimile transmission where the document to be transmitted is wrapped around a drum and scanned by a slowly traversing narrow beam having a noticeable locking pulse at the start of each scan.

Piccolo or Piccolo-type signals have been logged on the following frequencies over the past three years:

6812	14849	16259.5	18113	20040	20569	24232.6	25063
12179.5	14861	16263.5	18136	20138.5	20985.5	24365.7	25247.5
13504.7	16197	17527.5	19617	20140	21771.8	24491.7	25251
13986	16207	17539	19954	20149	23178.2	24568.5	--Thanks, Geoff!

RH: With this essay, Geoff sent a cassette of various Piccolo-type signals monitored in England in mid-February, and he is right: the signals I reported in "March" were Piccolo. On the other side of the cassette, he had "numbers" broadcasts, most in East European languages, including one similar to that described in the Dec 83 issue as Geoff's "catch of the week", p 12. The "short bugle calls repeated" are perhaps better described as a tape-loop of about 3 or 4 bars of martial music played on drums and bugle. It's a simple reveille-type phrase, not recognizable as having a specific nationality. The groups of 5 numbers following are indeed Bulgarian, but a friend has pointed out that the same language is spoken in Albania. The two dialects are said to be even closer than American and British English, and so this may be Albanian. Three of the digits were pronounced a bit differently from the way a Bulgarian would say them. Geoff's recording of this transmission was made on 13 Feb starting at 2333z on 5500 AM, and each group was repeated before going on to the next. Also on the tape was Geoff's 11 Nov intercept of Slovakian numbers on 3767//3354, reported in the Feb log. The language has been positively identified as Slovak and there are some other unusual details: while most of the groups have 5 digits, there are some with only 2 or 3. A few of the groups included the Slovak word "rudna", which means "hyphen", and the message ended "nula nula nula" (ØØØ). The Slovak numbers are: "nula (nua)" = Ø, "yedna" = 1, "dva" = 2, "zre" = 3, "shteri" = 4, "pyet" = 5, "shest" = 6, "sedum" = 7, "osum" = 8, "deviet" = 9.

Final Follow-Ups

I can see it's going to be harder to stop doing this column than I'd expected - info still flows in and I still have the impulse to tell you about it. But my decision is irrevocable. Anyway, just to wrap up some recent items, the proposed merger between BR Communications and Sunair Electronics fell through at the end of February for unknown reasons. The First 50 Years: A History of Collins Radio and the Collins Divisions of Rockwell International, mentioned here briefly last issue, has arrived and it's great! A nicely written and designed hardback, it begins with Arthur Collins' fascination with ham radio, his highly publicized contacts with a scientific expedition to Greenland while still a teenager, the formation of Collins Radio in 1931 - the first company to offer fully assembled, ready-to-use radio transmitters - WW2 & military avionics breakthroughs, the purchase by Rockwell, and then the book peters out. Very enjoyable reading. The reason the postage costs are so high is that the book, though thin, is heavy.

Ian (ENG-003) had recommended a book in his long letter last month, which I didn't mention as I wanted to read it first: S.I.O.P. - The Secret US Plan for Nuclear War by Peter Pringle and William Arkin, ISBN 0-393-01798-2, $16.95 from W W Norton & Co (1983). As the dust-jacket blurb says, "This is the first comprehensive look at the Single Integrated Operating Plan the United States has had since 1960 to wage nuclear war on Russia... /The authors/ have unraveled the huge, hidden network of satellites, computers, radar and microwave links that gathers intelligence on the Soviet Union and would help to execute the S.I.O.P. in time of war." Ian pointed out that, according to Pringle and Arkin, "Looking Glass" is no longer the code-name for the SAC airborne command posts. "Cover All" is supposed to be the current name. "Night Watch" is said to be "the official code name" of the National Emergency Airborne Command Posts; other regional ACP names: "Silk Purse" for the European Command, "Blue Eagle" for the Pacific Command, and "Scope Light" for the Atlantic Command. Note that "official code name" is not necessarily the same thing as "tactical callsign".

Index to Past Columns

Feb 82 - brief description of Collins/Rockwell's "monumental study of actual and potential use of HF by the US Army."

March 82 - description of the US Air Force worldwide HF Command Control Network, with map & freqs; list of Polish utility freqs; Iran's news agency increasing RTTY bcasts; new RTTY lists from Universal Electronics; a few Space Shuttle freqs.

April 82 - AT&T's High-Seas Service; the Automated Mutual-Assistance Vessel Rescue System (AMVER); Monitoring Time's smugglers' freqs; numbers bcasts; review of Short-Term HF Forecasting and Analysis; ordering info for The ELF Odyssey and Short Wave Receivers (Citations from the International Information Service for the Physics

and Engineering Communities); review of the NEC Monochrome Character Display JB-1201M; Jordan's news agency increases RTTY boasts.

May 82 - description of Worldwide Crisis Alerting Network, Phase II Task 2, Identification of Existing Systems; ICAO en-route freqs (obsolete now) and map; new Aero (R) band plan.

June 82 - transcript of comms between Soviet sub grounded on Swedish coast and Soviet High Command; Radio Moscow boasting on 10 MHz; W5RRR relays of Space Shuttle comms; more on WARC-79; review of Radio Frequency Use and Management: Impacts from WARC-79 and the AMVER Bulletin; freqs used by Tri State Motor Transport.

July 82 - the Falklands War: Haig/Reagan conversation, freqs used by Haig, the Cable & Wireless transmitter; Canadian, British & Australian military aero freqs; the new ICAO freqs; the Ground Wave Emergency Network; Draft Supplement to the Final Environmental Impact Statement, East Coast OTH-B Radar.

August 82 - the Civil Air Patrol; new domestic US Aero allocations; review of Grove's Shortwave Freq Directory; AT&T High-Seas Service (complete freqs); review of The Flying White House: The Story of Air Force One and Assault on the Liberty.

Sept 82 - Special Feature: OTH-B Radar; RCMP and foreign embassies in Ottawa freqs; monitoring Air Force One; IRAC reclassifies federal freq list; is RTTY worth the investment?; the first direct-dialed phonecall to a ship at sea.

Oct 82 - no column

Nov 82 - domestic Canadian freq assignments; new ITU emission designators; new LDOC freqs; reviews of The Air Force Communications Command: Providing the Reins of Command and Ferrell's Confidential Freq List (5th ed); update on Air Force and Navy OTH-B radar plans.

Dec 82 - Strategic Air Command's HF Modernization; specs for the Info-Tech M-600; Japanese police nationwide HF freqs; review of The Puzzle Palace: A Report on NSA.

Jan 83 - monitoring the Germans in WW2; the world's first "numbers" QSL?

Feb 83 - the Post-WARC Band plan for 4 - 30 MHz; US proposals for the 1983 WARC for Mobile Services.

March 83 - numbers; review of the Icom IC-R70.

April 83 - monitoring diplomatic radio traffic in India; some Japanese freqs; Canadian private ship/ship & ship/shore freqs; the Nimrod airborne early-warning aircraft; Survey & Analysis of Communications Problems in Nuclear Power Plants.

May 83 - Freqs from Radio Aids to Marine Navigation (Canadian Coast Guard publication); FEMA prepares for crash of the Cosmos-1402 satellite; 10109-10112 kHz "off-limits" channel in the new ham band; WPD - maritime telex station; Group W's Satellite News Channel heard on 1622; DXing radnav signals with the FCC.

June 83 - Uerling's Aero Quick-List; VLF use in Canada; Director of the Defense Communications Agency on the potential of HF; the HILAT satellite; Japanese ship/shore public radiotelephone freqs (above 12 MHz); review of the Kenwood R2000.

July 83 - Special Air Missions: an inside view; more on the Ground Wave Emergency Network; Air Force and Navy award VLF/LF contracts; review of Ferrell's Guide to RTTY Freqs; United Nations RTTY freqs.

Aug 83 - monitoring satellite SSB channels with an HF receiver and a TVRO station; a visit to New Zealand Oceanic Control; Collins/Rockwell experimental freqs; USAF plans to develop HF/VHF radios; new antenna for Nepal airline; new voice-scrambling system heard on HF; mysterious relationship between 6221.6 and 3366 kHz; SAM Watch; OTH-B radar news.

Sept 83 - Bearcat DX-1000 specs; basic distress, calling & guarded freqs; Skeleton Coast Radio (Namibia); Greenpeace Radio; followup to review of Ferrell's RTTY Guide; numbers; 747 carrying the Space Shuttle logged.

Oct 83 - non-AT&T public radiotelephone maritime freqs; PARKHILL voice encryption described; Handbook of Military Communications, 1983-84, Naval Aviation News, Air Force Magazine and an overview of the "preliminary design of an automatic adaptive HF radio network for use in a post-nuclear environment" recommendations; SAM Watch; NSA files from WW2 given to National Archives; Archives also has German recordings of Allied radio comms; NSA job fair ad.

Nov 83 - Knogo Corp seeks permission to operate field disturbance sensor systems between 2 - 10 MHz; building a "smart squelch"; variable-speed cassette recorder from Radio Shack; hurricane monitoring; review of The Enemy Is Listening; Russian voices on 11193 and 13555 kHz; monthly log resumes.

Dec 83 - interview with Bob Leary; numbers; Walvis Bay Radio freqs; detailed look at radnav signals between 1600 - 2000 kHz; Looking Glass and other airborne command posts; more on 11193 kHz and Russian CW aero weather.

Jan 84 - secure voice via digital reduction and voice synthesis; USAF changes duties of Airways stations; the Grenada invasion; even more on 11193 kHz; RAF freqs; Japan's Maritime Safety Agency freqs; results of the 1983 WARC for Mobile Services; Communist Party of Thailand news agency goes off the air; stock market/geomagnetism link alleged.

Feb 84 - transcript of ham comms between Mark Barettella on Grenada and US government; review of the Info-Tech M-600A; special feature: electromagnetic weather (lightning, aurorae and weather reconnaissance).

March 84 - second OTH-B radar funded; upgrading Soviet fixed systems; picture of Scope Signal III comm station; new transmitters for Dhaka International Airport, Bangladesh; ICAO list in freq-order; review of the Realistic DX-400 and VSC-1000; Soviet-made "tonal decoder".

April 84 - BR Communications wants to merge with Sunair Electronics; CW calling freqs for ships; VOLMET update; recommendation for Confound and Destroy; programming the Timex/Sinclair to read CW & RTTY; weatherfax freqs; WARC-79 implemented by FCC; response to review of the M-600A; book recommendations galore; HF comms in Canada's far north; Canada's experimental HF radiotelephone system (RACE); whistlers and related ionospheric phenomena.

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This brings us to the end of my tenure as editor of "Below 30 MHz". If you're toying with the idea of applying to take over this column, let me say that it isn't a duty or a chore so much as an honor to be at the receiving end of a steady stream of information from generous strangers who, in many cases, have achieved a level of expertise that is positively mindboggling. The benefits outweigh the burden many times over.

Monitoring is an exciting hobby, as all of you know - but it's a hobby with a unique sociopolitical dimension. Illegal in many parts of the world, it's an excellent example of the US's commitment to "the free flow of information", which is intimately linked to the ideal of "an informed citizenry", which is, in turn, a prerequisite for democratic decision-making. My initial interest in monitoring was largely based on the belief that we have not just the right but the duty, as voters and taxpayers, to know what our public officials are doing. (Once I got into monitoring, I found many more reasons to be enthused about it, of course.) There are good legal and ethical reasons to be discreet about what we hear - but NO reason to be defensive about the activity itself. If you read James Bamford's book, The Puzzle Palace (and if you haven't, you should), you know that monitoring by hobbyists is a trivial "problem" compared to the large-scale, heavily-funded, secret and often illegal monitoring done by government agencies like NSA.

Over the past two years, in addition to publishable material, I've gotten alot of mail that was just plain flattery. I've never acknowledged this in print before, but it sure meant alot to me. Fact is, it's the contributors who really deserve the lion's share of credit for making me look good - and they'll be around after I go. In fact, I'll probably become one of them. So whoever takes over, I hope you'll give them at least as much support as I got. Thanks for making this column a success!

"Under the rocks of secrecy
all kinds of things crawl."
--Stephen Unger
IEEE Spectrum, Feb 1984

Bob Montz

? Beginners ?????? Corner

If you are new to monitoring, or have something you don't understand, please write to me at the address given below and I will try to answer your question. When possible, your questions and answeres will be printed. For those who wish an immediate reply, please send a self-addressed, stamped envelope.

Bob Quinlan, 2210 N. Menard, Chicago, IL 60639

No column again this month; are there no more "beginners?" out there? Bob reports no mail for some time now, so this columnhead will be printed each month in the hope that questions will again come his way. When they do, you'll see a "Beginners Corner."

Editor

Business, Etc.

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufactureers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.), General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to:

Brandt Niemuth, P.O. Box 541, Rosemont, IL 60018

Greetings from the "Windy City" of Chicago;

For the second month in a row, the contributions have been just a bit lean. As a result, the one and only contribution comes from Mark (MA-045) covering the Boston TV Stations with an added bonus on the Boston Gardens and the Celtics - 76ers game aired on 2-12-84. This makes me wonder if there aren't other freqs to cover other sporting events and/or teams. Thanks Mark for your material.

In view of the fact that the summer months brings golf tournaments to areas that do not have the proper year-round weather for such activity, here is a listing of "some" Chicago area Golf Courses for some of these events. Please note the news media freqs for any locally televised tournaments,

154.515	KCI 836	Arlington Country Club	Arlington Heights
154.515	KCI 837	Arlington Country Club	Arlington Heights
151.625	KA92953	Butler Nat'l Country Club	Oakbrook
151.625	KX 4444	Butler Nat'l Country Club	Oakbrook
35.08	KVG 358	Exmoor Country Club	Highland Park
151.835	KCC 776	Glencoe Country Club	Glencoe
151.655	KCR 961	Arrowhead Country Club Inc	Wheaton
151.655	KKW 345	Medinah Country Club	Medinah
154.6	KT 6357	Medinah Investors	Medinah
151.715	KMB 476	Villa Olivia Country Club	Bartlett
464.55	KA67935	Professional Golfers Assn	Oakbrook

Until next time,
Happy Monitoring

MONITORING THE BOSTON TELEVISION STATIONS

WBZ TV (NBC AFFILIATE) WESTINGHOUSE

Ch. 1	450.550	ASSIGNMENT DESK, ENG CREWS AND REPORTERS	*KCG 839
Ch. 2	450.050	LIVE SHOTS AND FEEDS, ANTENNA LINE UP	
Ch. 3	450.350	IFB, CAMERA CUES	
Ch. 4	450.450	BACKUP	

CALL SIGNS:
"839"- ASSIGNMENT DESK
"E.N.G."-RECEIVE CENTER
"EYE 1"- LIVE VAN
"EYE 2"- LIVE VAN
"EYE 3"- LIVE VAN

CARS 1 to 20 ARE SINGLE PERSON ENG CREWS COMMONLY REFERRED TO AS "ONE MAN BANDS" TWO OR THREE OF THESE UNITS HAVE PORTABLE TRANSMITTERS IN THEM, SO THEY ALSO CAN DO LIVE SHOTS.

WCVB TV (ABC AFFILIATE) METROMEDIA

Ch. 1	455.0875	LIVE SHOTS AND FEEDS, ANTENNA LINE UP	*KYY 288
Ch. 2	455.6125	ASSIGNMENT DESK, ENG CREWS AND REPORTERS	*KTE 752
Ch. 3	455.5125	IFB, CAMERA CUES	

CALL SIGNS:
"752" or "NEWS"-ASSIGNMENT DESK
"E.N.G."- RECEIVE CENTER
"BEE" - LIVE VAN
"ZEBRA" - LIVE VAN

CARS 1 to 15 ARE "ONE MAN BANDS" TWO OF THESE UNITS HAVE PORTABLE TRANSMITTERS ALLOWING LIMITED LIVE SHOTS.

Business, Etc. continued

"HORNET"- LIVE VAN
"HIPPO" - LARGE PRODUCTION TRUCK USED FOR MULTIPLE CAMERA LIVE SHOTS SUCH AS THE BOSTON MARATHON.

WNEV TV (CBS AFFILIATE) NEW ENGLAND TELEVISION

Ch. 1 450.6125 ASSIGNMENT DESK, ENG CREWS AND REPORTERS *KCE 940
Ch. 2 450.0875 IFB, CAMERA CUES, LIVE SHOT SET UP *KEG 986

CALL SIGNS: "940"- ASSIGNMENT DESK
"E.N.G."- RECEIVE CENTER
"VAN ALPHA" - LIVE VAN
"VAN BRAVO" - LIVE VAN
"VAN CHARLIE"- LIVE VAN
"VAN DELTA" - LIVE VAN

CARS 1 to 10 AND "THE BLAZER" ARE "ONE MAN BANDS"

WLVI TV (Ch.56) WILL BE STARTING UP A NEWS DEPT. IN THE SPRING, THE FREQS THAT THEY WILL BE USING ARE UNKNOWN AT THIS TIME.

WBZ TV AND WCVB TV BOTH HAVE THEIR OWN HELICOPTERS. WBZ'S IS CALLED "SKY EYE 4"AND WCVB'S IS"NEWSCOPTER 5." HOWEVER, AFTER NEWSCOPTER 5 CRASHED IN NEW HAMPSHIRE A COUPLE OF MONTHS AGO, KILLING THE PILOT, THEY HAVE BEEN USING A TEMPORARY COPTER. WNEV RENTS ONE FOR SPECIAL ASSIGNMENTS ONLY.

BOSTON GARDEN SECURITY 154.600 KE 7121

BASE - CONTROL CENTER
ECHO 1 - DIRECTOR OF SECURITY
ECHO 2 - OFFICER IN CHARGE
ALPHA - RESPONSE TEAM 1 (1 SGT, 5 MEN)
BRAVO - RESPONSE TEAM 2 "
CHARLIE- RESPONSE TEAM 3 "
DELTA - RESPONSE TEAM 4 "
FOXTROT- EXTRA RESPONSE TEAM (CONCERTS, ECT...)
UNITS 1 to 5 - MAINTENANCE STAFF
UNITS 6 to 9 - SUPERVISORS
UNITS 11 to 20 - 1 MAN POSTS (RAMPS,STAIRWAYS, ECT...)
K 1 to K 5 - K9 OFFICERS (EXTERIOR,PARKING LOTS,RAMPS)

CBS SPORTS REMOTES FROM THE BOSTON GARDEN(CELTICS GAMES)

450.350 CAMERA CUES
450.512 ENGINEERING
450.212 SET UP
161.640 IFB

(ALL OF THESE FREQS ARE MONITOR CONFIRMED)

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to:

Rob Berezowski, 211 Costigan Bay, Saskatoon, Saskatchewan, S7J 3P4 Canada

Hello all and welcome to the May 84 Canada column. The weather up here in Western Canada has been unreal. For almost two months it has been very mild, with the temperatures above freezing most of the time. Of course there is almost no snow on the ground, and you pay for this warmth when you try to ski on what is left of the snow in the mountains. I have a lot of material for this month, so let's get started. I am almost out of Liquid Paper, so I hope I don't make too many mistakes.

First of all from Burt(CAN-011) comes some frequencies for various police departments in Ontario.

Paris (Ontario) Police		143.505
Norwich Police		149.695
Tillsonburg Police		143.010
Delhi, Ont. Police		149.695
Simcoe Police		142.740
Petrolia Police		142.845
Sarnia Township Police		142.800
Sarnia Police	XJF-45	142.455

Thanks for the info Burt. Harry(CAN-074) has sent along a copy of a map of the Edmonton Police Division/District boundaries. The map is accurate, but unfortunately I do not believe it will be readable when it is reduced for the newsletter. If any member is interested, I can send a copy (8½ by 11) for a SASE. The city is divided into 4 Divisions, labelled A to D. Each division is then divided into 8 or 9 districts, numbered 0 to 9. As I understand it, one car per watch covers each district. I am sure that Harry will supply more details if anyone is interested or is planning a trip to Edmonton. (Edmonton is a very nice city, although I've only been there a few times on brief visits) Thanks again Harry.

From my own files comes this list of frequencies for Saskatoon and region. Some of you might have been wondering what it is that I have been listening to since I moved here. Information was supplied by Harry (CAN-074) & Myron (CAN-057), as well as from my own monitoring. The lists were greatly appreciated.

PROVINCE-WIDE

RCMP	A Repeater	System		155.430/154.800in
	B Repeater	"		155.580/154.890in
	C Repeater	"		155.700/154.950in
	D Repeater	"		155.640/155.040in
	Tac 2 "Local"	Car to Car		155.670/155.670
	Tac 3	Municipal		155.460/155.460
	Tac 4	Operations		155.310/155.310
	5 Repeater	System		156.030/155.070in
				154.830/154.040in
Saskatchewan Power Corp. (rural power & natural gas)				139.080/141.570in
				139.110/141.600in
				139.140/141.630in
				139.170/141.660in
				139.200/141.690in
				139.260/141.720in
				139.290/141.750in
				140.310/140.310
				140.400/140.400
Saskatchewan Dept. of Highways		Phone Patch	1	166.830/167.400in
		" "	2	166.860/167.430in
		" "	3	166.890/167.850in
				168.030/168.030
		Highway Traffic Board		157.290/157.290
Saskatchewan Telecommunications		Phone Patch		138.465/142.245in
		" "		138.555/142.665in
		" "		138.585/142.275in
		" "		138.615/142.215in
		" "		138.675/142.455in
				139.500/139.500
		Pager		149.770
		Aircraft Phone		454.700/459.700
		Signals		454.675

SASKATOON

Saskatoon Police Dept.	Dispatch Primary	1	462.125/467.1375in
	Secondary	2	462.275/467.2875in
	Tactical	3	462.575/467.5875in
	CPIC/NCIC	4	462.975/467.9875in
	Car to Car	5	462.125/462.125
	" " "	6	462.275/462.275
	" " " /tac	7	462.575/462.575
	" " "	8	462.975/462.975

		Pager	461.0125
		Animal Control/Parking	155.730/155.730
		Beats/Crisis Workers	155.190/155.910in
Saskatoon Fire Dept.		Dispatch/Ops 1	153.830/154.340in
		Fireground 2	153.830/153.830
		Fire Station Link	419.000/414.0125in
MD Ambulance Co.		Dispatch/Hospital Patch	158.760/158.760
City of Saskatoon		Administration	154.740/154.740
		Electrical Dept.	169.590/170.250in
		Emergency Measures Organization (EMO)	27.800/ 27.800
		Operations	148.685/149.495in
		City Common	154.740/154.740
		Police Common	155.190/155.910in
		Engineering Dept.	169.050/169.800in
		Parks & Recreation Dept.	166.950/166.950
		Transit Buses/Ops 1	413.0125/418.0125in
		Future? 2	413.1125/418.1125in
		" ? 3	413.3125/418.3125in
Provincial Agencies		Sask Tel Phone Repair	162.300/162.300
		Phone Patches	138.465/142.245in
			138.555/142.665in
		Dept of Parks/Game Wardens	165.690/164.760in
		Saskatoon Remand Center	153.890/154.400in
		Sask Council for Crippled Children & Adults (Handi-bus)	169.230/169.230
Federal Agencies		Weatheradio Canada	162.550
		Ministry of Transport (Saskatoon Airport)	
		Fire Dept 1	460.2000/465.2125in
		2	460.3375/465.3375in
		National Research Council	453.9875/453.9875
		Dept of Communications	149.080/149.080
		Can. Penitentiaries - Saskatoon Psychiatric Centre Security	468.9375/466.2375in
Rural Municipality of Corman Park Police			154.860(R)
News Media	CBC TV News Photographers		455.0375/455.0375
	CFQC Radio/TV News (CTV)		455.3125/455.3125
	Radio Remote Broadcasts		450.8875/450.8875
	Studio Transmitter Link		450.7125
	CKOM Radio (duplex, no repeater)		450.9375/455.9375M
	Saskatoon Star Phoenix Circulation		170.070/170.070
	CJWW Radio		450.9875/450.9875
University of Saskatchewan		Campus Ops/Security	152.030/152.900in
		Campus Pager	149.290
		Agriculture Canada	29.760/ 29.760
		Geological Sciences	153.050/153.050
		Veterinary Clinic	158.310/158.310
		Hospital Ops	153.710/154.280in
			451.0625/456.0625in
		Pager	453.0375
Saskatoon City Hospital		Pager/Security	464.8875/464.8875
St Paul's Hospital		Pager	31.920
Saskatoon Centennial Auditorium			35.020
			169.200/169.200
Midtown Plaza Shopping Center			172.440/172.440
Bessborough Hotel			149.020
Hudson's Bay Security			469.0375/469.0375
Holiday Inn			149.020
			149.410
ADT Security			143.835/148.825in
Air Canada			460.700/460.700
Pacific Western Airlines			170.670/170.670
Saskatoon Radio Cabs			165.030/165.030
United Cabs			157.530/157.530
		(simulcast)	162.870/162.870
Potash Mines	Cominco	Surface	157.620/151.985in
		Underground	157.710/152.210in
	Potash Corp. of Sask.	Underground	152.090/155.090in
		Maintenance	168.270/168.270
	Potash Corp. of America		168.300/168.300

(This frequency listing concluded on page 19)

Brian(CAN-078) has been kind enough to make up a chart of OPP frequencies. Brian has gone through the column, taking out all of the new OPP frequencies I published a few issues back. He has arranged all of the new frequencies into a matrix.(that word matrix brings horror to the minds of all the 3rd year electrical engineers) I have included the chart in the column. In this form it is very easy to determine frequencies for a location, or locations on a particular frequency. Brian also passes on that the new OPP system is similar to the Bell Mobile Radio System. Members who are familar with the Bell System may find it easier to understand the new OPP system if they compare the former with the latter. Thanks for writing in Brian.

OPP

REPEATER OUT - IN	Ancaster	Avonmore	Aubrey Falls	Aylmer	Baldorson	Bellevue	Catham	Deadman	Elliot Lake	Espanola	Essex	Fonthill	King City	London	Montreal River	Mount St.Patrick	Newby's	Oak Height	Parry Sound	Plantagement	Ponty Pool	Primrose	Rockcliffe	Simcoe	Streetville	Summit	Toronto	Wawa	West Lorne	West McGillivray	Wharncliffe	Whitby	Woodstock	Wyoming
141.195-139.185						X						X	X			X								X		X							X
141.300-139.410	X																							X									X
141.300-139.950						X							X			X										X							
141.360-139.170	X																																
141.360-139.260	X																																
141.360-139.215			X																												X		
141.390-139.470						X							X			X																	X
141.405-139.095					X													X							X					X			
141.420-139.215																													X				
141.435-139.155							X			X	X	X			X																		
141.450-139.200																							X									X	
141.495-139.290		X							X																X					X			
141.510-139.425							X					X																					
141.540-139.305																																X	
141.555-139.320				X																		X											
141.630-139.260	X				X													X							X					X			
141.630-139.320																	X																
141.675-139.350				X																		X											
141.690-139.455							X			X	X	X			X																		
141.705-139.110									X																X								
141.705-139.380																														X			
141.720-139.395																													X				
141.720-139.485			X																												X		
142.275-138.255							X				X																						
142.365-138.345							X				X									X				X						X			
142.575-138.555							X				X																						
142.665-138.365																														X			
142.665-138.645							X				X	X												X						X			
142.770-138.750	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X			X	X	X	X	X	X
143.160-139.140														X					X		X												X
143.295-139.470												X												X									X
143.310-139.440														X													X						
143.640-139.500																			X		X												
143.655-139.065							X				X				X																		
143.655 simplex												X																					
140.970 simplex	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X	X			X	X		X	X	X
*139.680 simplex																																	
*151.700 simplex																																	
**155.640 simplex																																	

* = Experimental in 1981,82.May still be in use

** = Also used by the RCMP

Canada continued

(Continued from page 17)

REGINA

Regina City Police	1	413.0125/418.0125in
	2	413.1625/418.1625in
	3	413.4125/418.4125in
	4	413.5875/418.5875in
		413.7875/418.7875in
		413.8625/413.8625
		153.7700/153.7700
Regina City Fire Dept		155.220/155.850in
		155.895/156.225in
		155.970/155.970
Olson's Ambulance		158.760/158.760
City of Regina		157.080/156.120in
		157.110/156.270in
		157.200/156.360in
Wascana Institute Security		156.000/155.280in
University of Regina		456.700/451.200in
Canada Post Office		411.7625/416.7625in

PRINCE ALBERT

Prince Albert City Police	153.665/157.185in
	153.875/157.275in
	154.665/154.665
	155.385/155.385
	156.135/156.135
Prince Albert Fire Dept.	154.130/154.130
City of Prince Albert	154.710/154.710
Parkland Ambulance Care	153.530/153.530
Prince Albert Federal Penitentiary	151.175/151.175
	151.475/151.475

MOOSE JAW

Moose Jaw Police	151.145/151.145
	151.205/151.205
	151.325/151.325
Moose Jaw Fire Dept	155.550/155.550
Moose Jaw Transit	159.000/159.000
Moose Jaw Engineering	169.230/169.740in

Well, that's about all for this month. I've got a lab to fudge up (er, I mean creatively write up). I still have some Liquid Paper left over, just enough to change some of our lab data. Actually this is the first lab we have had to fudge, so we are doing pretty good. Until next month, take care and good listening.

COMMUNICATIONS PROFILE

Cliff Polkinghorn, 14310 Acacia St., San Leandro, CA 94579

This column is for special projects that explain various radio systems in detail. Frequencies and radio codes of not only municipal agencies and certain federal government agencies may be listed, but also large businesses and corporations. The contribution must be lengthy enough that publishing it in one of the regular columns would not be possible. If you are inclined to submit a report as the one below appears, please follow No. 8 in the inside front cover of the Newsletter.

Welcome to the MAY "COMMUNICATIONS PROFILE" THIS MONTH WE ARE GOING TO LOOK AT THE CITY OF SAN LEANDRO POLICE and FIRE DEPARTMENTS. This is my home area, so I guess I can put a little effort towards it, like many of you have done about your areas. THANKS TO JERRY ALBURY FOR HIS VALUABLE ASSISTANCE IN THIS ARTICLE.

I hope to have the C.D.F. PROFILE started in the June issue. I will again thank all the contributers then.

Besides the C.D.F. stuff I asked for, I have not received any other info for the "PROFILE COLUMN". LETS GET WITH IT--OUT THERE--you know the old saying----NOTHING in---NOTHING out.

NOW---lets get on to "SAN LEANDRO CALIF.--

CITY OF SAN LEANDRO

INFORMATION:

San Leandro California is about 15 square miles in size. Located about 30 or so miles south and east of SAN FRANCISCO.

POLICE:

Consists of 86 FULL TIME OFFICERS
44 FULL TIME CIVILIANS
22 CROSSING GUARDS
45 RESERVE OFFICERS
35 PIECES OF EQUIPMENT (both marked and unmarked)

FREQUENCIES:
154.800 #1 GRAY
154.965 #2 BROWN
154,920 CLEMARS

BEAT INFO:
NORMALLY OPERATES ON AN EIGHT (8) BEAT SYSTEM.

RADIO IDENTIFIERS: (2 SEGMENT SYSTEM)
#1 = SHIFT ASSIGNMENT #1, 2, 3, or 4 (overlap)
#2 = BEAT NUMBER 21 thru 28
OTHER IDENTIFIERS:
#29 thru 40 = ROVING UNITS (including R-37, which is the Paddy Wagon)
#51 thru 54 = SGT.'s
#71 = LT.
#81 and 82 = CAPTAINS
#91 = CHIEF OF THE DEPARTMENT
R = RESERVE OFFICER
I = INVESTIGATORS (except Juvenile)
J = JUVENILE INVESTIGATORS
AC = ANIMAL CONTROL
2W1 and 2W2 = WARRANT SERVERS
561 and 562 = SPECIAL D.U.I. UNITS
TRAFFIC-XX = TRAFFIC ENFORCEMENT (motorcycles and cars)
PARKING-XX = PARKING ENFORCEMENT

NOTE: R-37 is always the "WAGON" and it has the following radio capabilities:
#1-- 154.800 S.L.P.D. 1
#2-- 154.965 S.L.P.D. 2
#3-- 154.920 CLEMARS
#4-- 155.070 CLEERS NET, also ALCO S.O. "GREEN"
#5-- 154.070 FIRE RADIO
#6-- 155.130 ALCO "PURPLE" (VICE)
#7-- 154.650 ALCO "BLACK"
#8-- 156.090 OAKLAND POLICE

SAN LEANDRO POLICE USES THE OLD (but effective) 900 CODE.

901 VEHICLE ACCIDENT PROPERTY DAMAGE
901A VEHICLE ACCIDENT INJURIES
901B VEHICLE ACCIDENT NO DETAILS
904 MESSAGE RECEIVED
905 ABANDONED AUTO
906 PERSON BREAKING IN ____
908 OUT OF SERVICE
908D OUT OF SERVICE OFF DUTY
908F OUT OF SERVICE ON ASSIGNMENT
909 IN SERVICE
909A IN SERVICE ON ASSIGNMENT
909D IN SERVICE ON DUTY
910 PROWLER--NOT SEEN
910A PROWLER--SUSPECT OBSERVED
912 SUSPICIOUS PERSON
913 SUICIDE
913A SUICEDE ATTE PERSON
914 CONTACT RADIO BY PHONE
914a HOSTAGE OFFICER/CALL STATION
918 PERSON CALLING FOR HELP
921 CAR PROWLER OR CLOUTER
922 INTOXICATED PERSON
922A INTOXICATED PERSON IN VEHICLE
924 RETURN TO STATION
926 LOCATION
929 FIRE
976S SUBPOENA SERVICE AT ____
976W WARRANT SERVICE AT ____
981 SECURITY CHECK
985 OPERATOR IDENTIFICATION
987A SUSPECT G.O.A.
987B REFER REPORT
987G NO REPORT
988 DO YOU HAVE TRAFFIC FOR THIS UNIT ?
999 SUSPECT IS POTENTIAL HAZARD---
CONSIDERED DANGEROUS PERSON

CODE 1 AT YOUR CONVENIENCE
CODE 3 EMERGENCY
CODE 4 NO FURTHER ASSISTANCE NEEDED
CODE 5 STAKE OUT
code 6 COVER UNIT DISTANT TO CALL
CODE 7 OUT OF SERVICE-MEALS
CODE 8 REQUEST COVER UNIT-NOT URGENT
CODE 9 NO COVER UNIT AVAIL. AT THIS TIME
CODE 10 OUT OF VEHICLE w/portable RADIO
CODE 33 ALL UNITS STAND BY--EMERGENCY
CODE 34 CANCEL CODE 33

929A FIRE-AUTO
929H FIRE-HOUSE
929G FIRE-GRASS
933 "AUDIBLE" BURGLAR ALARM SOUNDING
933 "SILENT" BURGLAR ALARM SILENT
933 "211" ROBBERY ALARM
935 P.I.N. CHECK--VEHICLE
935C P.I.N. CHECK REQUEST CLEAR
936 P.I.N. CHECK PERSON
936C P.I.N. CHECK REQUEST CLEAR
938 CANCEL
939 CAN YOU RECEIVE CONFIDENTIAL INFO VIA RADIO ?
939 "AUTO STATUS" STOLEN AUTO/PLATES WILL CONFIRM
939 "FRANK" POSSIBLE FELONY WARRANT
939 "MARY" POSSIBLE MISDEMEANOR WARRANT
939 "VICTOR" POSSIBLE TRAFFIC/VEHICLE WARRANT
939 "PARKER" POSSIBLE PARKING NON-DESCRIPTION WARRANT
939 "CONFIRMED" OUTSTANDING WARRANT CONFIRMED
940 CONTACT OFFICER AT _____
940A EMERGENCY---OFFICER NEEDS ASSISTANCE
940A/939 OFFICER HELD HOSTAGE/USE LAND WIRE
940B OFFICER REQUESTS COVER UNIT---EXPIDITE
945 REPORTED INJURY--ACCERTAIN AMBULANCE
946 TOW REQUIRED
947 WAGON FOR TRANSPORTATION
948 RESUSCITATOR NEEDED
949 SUSPICIOUS AUTO
949A SUSPICIOUS AUTO--OCCUPIED
953 PERSON DOWN
958 CARBAGE DUMP
962 CONTACT CITIZEN
963 BALLPLAYING IN STREET
967 VACATION HOME
970 ILLEGALLY PARKED AUTO
970B ILLEGALLY PARKED AUTO BLOCKING DRIVEWAY
973 TRAFFIC CONTROL POST
975 CIVIL STANDBY

G.O.A.= GONE ON ARRIVAL
U.T.L.= UNABLE TO LOCATE
P.I.N.= POLICE INFORMATION NETWORK
A.S.A.P.= AS SOON AS POSSIBLE
5150 = INSANE CASE-MENTALLY ILL PERSON

SAN LEANDRO CALIFORNIA FIRE DEPARTMENT

The SAN LEANDRO FIRE DEPARTMENT is part of the ALAMEDA COUNTY FIRE MUTUAL AID MASTER PLAN. All cities, communities and some large industries are included in this plan. Each member (CITY, COMMUNITY, ETC.) has a number assigned to them, for RADIO IDENTIFICATION purposes. SAN LEANDRO FIRE IS designated #2. S.L.F.D. uses this number constantly, as a normal part of its RADIO IDENTIFICATION SYSTEM. (ie. 2E2= COUNTY #2, ENGINE, STATION 2)

SAN LEANDRO FIRE also uses, as a primary dispatch frequency 154.070 MHZ. (this is known in the "COUNTY" as the "RED" channel). This frequency is shared by COUNTY FIRE DISPATCH, HAYWARD FIRE IDSPATCH, as well as S.L.F.D. Most all other cities in ALAMEDA COUNTY have their own frequency for fire dispatching.

SAN LEANDRO FIRE is dispatched thru the city dispatch center, located at POLICE HEADQUARTERS. (FIRE HEADQUARTERS IS! also located at the same location)

The fire departments 96 members (94 uniformed & 2 non-uniformed) protect life and property from fires and other emergencies originating from natural and manmade disasters.

Under direction of the FIRE CHIEF, the FIRE ADMINISTRATION is responcible for the day-to-day personnel deployment, overall training activities, safety programs and annual testing of fire hydrants and water supply mains throughout the city. In addition, FIRE ADMINISTRATION conducts fiscal control, special projects (communications, fire alarms, etc.), planning and research, and civil defence disaster planning.

The FIRE PREVENTION DIVISION is composed of a Battalion Chief (who is also the FIRE MARSHAL) and two fire inspectors. Their objective is to eliminate sources of fire. A major area of emphasis is checking building plans for compliance with fire codes. In addition, they respond to weed and fire hazard complaints, inform the public as to how to prevent fires and periodically inspect business establishments for fire hazards.

The TRAINING DIVISION is composed of one CAPTAIN who, as director of training, is responc ible for the training and continued education of all department personnel in standardized fire fighting methods and procedures.

The FIRE SUPPRESSION DIVISION is composed of three (3) Battalion Chiefs, fifteen (15) Fire Captains, thirty (30) Engineers and thirty-nine (39) Firefighters. Personnel in this division are on duty three (3) 24 HOUR rotating shifts.

The city has five (5) fire stations located at 450 ESTUDILLO AVE., 1040 DAVIS ST., 2101 MARINA BLVD., 1065 143rd. ave., and 395 FARGO ST. One Battalion Chief is on-duty commander in charge of the FIRE SUPPRESSION DIVISION activities for all stations. Each station is headed by a Fire Captain who is the first line supervisor in charge of station and equipment maintenance, training and district fire prevention inspections and all fires and rescues in his/her district. The Fire Engineer's duties include operating and maintaining the fire apparatus and its equipment. Firefighters are directly involved in firefighting. On a day to day basis, fire suppression personnel are involved in both manual and classroom type training, fire district inspections, and station maintenance. They make presentations to children and adults on fire prevention, C.P.R. demonstrations, issue merit badges, conduct station tours and handle voter and bicycle registration.

FIRE ALARM ASSIGNMENTS:
FIRST ALARM IS USUALLY TWO (2) ENGINE COMPANIES, ONE (1) TRUCK COMPANY, and ONE SQUAD. TWO STATIONS ROLL ON ALL FIRST ALARM ASSIGNMENTS, THE STATION FOR THE DISTRICT WHERE THE FIRE IS, AND A PRE-DETERMINED BACK-UP STATION. THE DUTY BATTALION CHIEF ALSO ROLLS.

SECOND ALARM ASSIGNMENTS WILL BRING TWO (2) MORE ENGINE COMPANIES, ONE MORE TRUCK COMPANY AND ONE (1) MORE SQUAD.
THE DUTY BATTALION CHIEF WILL NOTIFY "RADIO" IF A SECOND ALARM IS NECESSARY. THE DISPATCHER WILL THEN CONTACT THE NEXT TWO PRE-DETERMINED STATIONS. THIS MAY BE DONE VIA THE RADIO, OR VIA LAND LINE. DISPATCH WILL ALSO CONTACT THE FIRE CHIEF and/or DEPUTY FIRE CHIEF, AND ASK THEM TO RESPOND.

GENERAL ALARM ASSIGNMENT IS THE NEXT STEP. (S.L.F.D. MUST GO TO MUTUAL AID, IF A SECOND AL ARM ASSIGNMENT IS INSUFFICIENT)

NOTE:
Recently the news media announced SAN LEANDRO ahd a three (3) alarm fire. Actually it was a two alarm fire, with a special call for one more engine company, mutual aid was not requested, but off duty firemen were called out.

GENERAL ALARM ASSIGNMENT will require the CHIEF IN COMMAND to declare a GENERAL ALARM FIRE to "RADIO". This will bring out the last remaining station. Dispatch will call out off duty firemen, contact ALAMEDA COUNTY FIRE for mutual aid, and usually call OAKLAND FIRE directly, for assistance. AT THIS TIME, ALAMEDA COUNTY WILL BROADCAST A YELLOW ALERT IN THE COUNTY.

MUTUAL AID WILL USUALLY COME FROM, OAKLAND, HAYWARD, EDEN CONSOLIDATED, and/or CASTRO VALLEY.

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXX

STATION LOCATIONS/EQUIPMENT

STATION 1--450 ESTUDILLO AVE.
c/o ENGINE (2-E-1) 1500 GPM, 500 GAL. CAP. (DIESEL)
TRUCK (2-T-1) 100 ft. LADDER,
RESERVE ENGINE (2-E-7) 1000 GPM., 500 GAL. CAP.
RESERVE TRUCK (2-T-6) 750 GPM., 200 GAL. CAP.

STATION 2--1040 DAVIS ST.
c/o ENGINE (2-E-2) 1500 GPM., 500 GAL. CAP.
SQUAD (2-S-2) 120 GPM., 500 GAL. CAP.

STATION 3--2101 MARINA BLVD.
c/o ENGINE (2-E-3) 1500 GPM., 500 GAL. CAP.
TRUCK (2-T-3) 75 ft. LADDER

STATION 4--1065 143rd AVE.
c/o ENGINE (2-E-4) 1500 GPM., 500 GAL. CAP.
TRUCK (2-T-4) SNORKEL
SQUAD (2-S-4) 120 GPM., 500 GAL. CAP.
RESERVE ENGINE (2-E-6) 1000 GPM., 500 GAL. CAP.
POWER WAGON "GRASS RIG" (2-J-4)
POWER AND LIGHT TRAILER
FIRE PREVENTION VAN (2-P-8)

STATION 5--395 FARGO ST.
c/o ENGINE (2-E-5) 1500 GPM., 500 GAL. CAP.

RESERVE EQUIPMENT IDENTIFICATION

When any "RESERVE EQUIP. (ie.2E7 2E6, or 2T6) are used as actual operating equip., to replace the usual piece in repair. The "RESERVE" piece will keep the last number of its identifier, and add the station number of where its being assigned.

EXAMPLE:
2E6 to replace 2E2 at station 2 will be called
ENGINE 62------
6= 2E6
2= STATION 2

Communications Profile continued

OTHER RADIO IDENTIFIERS:
2-C-1 = FIRE CHIEF
2-C-2 = DEPUTY FIRE CHIEF (ADMINISTRATION)
2-C-3 = DEPUTY FIRE CHIEF (OPERATIONS)
2-C-4 = DUTY BATTALION CHIEF
off duty BATT. CHIEFS WOULD USE ID 2-C-5 and 2-C-6
2-C-7 = FIRE PREVENTION/FIRE MARSHAL BATTALION CHIEF
2-I-1 = SAME AS 2-C-7---2-I-1 is most likely the ID USED
2-I-2 = FIRE INSPECTOR
2-I-3 = FIRE INSPECTOR

OTHER INFO:
2-C-1 and 2-P-8 both have POLICE CHANNEL #1 in their VEHICLE RADIOS.
ALL HANDI-TALKIES HAVE POLICE COMMUNICATIONS CAPABILITIES ON CHANNEL 4 (P.D. CHAN. 1)

contact/info wanted

This column has two purposes: to help members contact each other, and to help members obtain information directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members by telephone, letter, or cassette tape in a certain geographic area or with members who have similar listening interests, this is the perfect place for you to make known your interests. Remember – those who respond will do so directly, so be sure to provide your phone number, the best time to be called, or your address. Write to:
Amy Polivka, 12906 Ohio Circle, Omaha, NE 68164

BORDER CONTACT WANTED: This member wants contact for Montreal Island and metropolitan area, also contact from members close to the USA and Canada border. Many frequencies to be checked. Cassette recorder available. (11-4-83)
GILLES THIBODEAU (CAN 101), 3653 Montcalm Lac-Megantic, Quebec, Canada G6B 2H8 - (819) 583-1817 after 6 hrs. PM

NEBRASKA/IOWA MEMBERS: This member wants anyone from Nebraska and/or Iowa wishing to start an RCMA chapter to contact him. (1-27-84)
GUY A. KROGER (IA-002), 3007 9th Ave., Council Bluffs, IA 51501

RE-CONTACT WANTED: Would the fellow who called this member one evening he was out please call back or write (they traded radios once). This member has misplaced your address and phone number when he moved. (2-1-84)
JAMES C. BROADBENT (MA-???), 127 Birchbrow Ave. North Weymouth, MA 02191 - (617) 335-4441 (after 4:30 p.m.)

ATTENTION WASHINGTON, D.C. MEMBERS: This member would like to know if other members in the Washington, D.C. area know what causes interference on 39.32 on a Regency M-100 scanner. He also had trouble on 39.30 (both frequencies are for Maryland State Police), but found it was an FM Educational station, and he now uses an RF Band Rejection Filter for the FM Band. With this in place, he is still experiencing trouble on 39.32. (2-6-84)
ED STOFFEL (MD-082), 422-B Secluded Post Circle, Glen Burnie, MD 21061

BAY AREA MONITORS: Interested in contacting you regarding Fire Dept. monitoring. Want to know frequencies and transmitter locations for all or part of the bay area. (2-7-84)
ROBB (LA-12) at (415) 398-6194, 9-5

FCC TOPICS

George DuBois, Editor

FCC news and information of interest relating to two-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

The FCC has provided ten frequency pairs for interim use by low-power cordless telephones. Most cordless phones now operate full duplex, in the 1625-1800 kHz band and on the five Part 15 channels in the 49 mHz band. The AM Broadcast band will eventually be expanded above 1600 kHz so continued operation will be precluded in this band. Also, the five 49 mHz channels (49.83 - 49.89 in 15 kHz steps) are heavily used, both by cordless phones and other low-power devices - walkie-talkies, etc. To provide relief, the twenty channels (in the table) will be available for equipment manufactured within the next five years. Marketing will be allowed for an additional year. The frequencies are in two US Government bands and their use has been coordinated with the Interdepartmental Radio Advisory Committee. The Commission decided to pair the twenty frequencies since if they weren't, operation on random frequency pairs could, by chance, cause mutual interference between two units (where one base transmit frequency was the same as another's receive frequency and vice-versa). Still to be decided is a permanent future home for cordless telephones. Suggested are parts of the guard bands on each side of 75 mHz and shared use of the 900 mHz Personal Radio Communications Service, if it is implemented.

ch.	base	remote
1	46.61	49.67
2	46.63	49.845
3	46.67	49.86
4	46.71	49.77
5	46.73	49.875
6	46.77	49.83
7	46.83	49.89
8	46.87	49.93
9	46.93	49.99
10	46.97	49.97

The Commission has withdrawn a proposal to create a new "codeless" Amateur radio license that would have allowed operation above 50 mHz without the applicant having to pass the minimum 5-words-per minute code requirement. With over 5000 comments received, opposition to the new class ran about 20 to one. The Commission concluded that learning Morse Code is not a significant barrier to obtaining a ham license. Also, there is a need for operators proficient in Morse Code to fulfill the Amateur Radio Service's traditional role of communications in the event of a national emergency. And, the Commission says, the use of Morse Code is relevant to everyday use of the Amateur Radio Service (except of course for your two-meter types, who pass their 5 wpm Technician class test then never touch a key again).

Another amendment eliminates the requirement that hospitals and other medical service providers licensed on the UHF "Med" frequencies (463.0 through 463.175 mHz) be equipped to operate on at least four of the eight channels. This requirement proved to be a hardship and an unnecessary expense, particularly in rural areas where no more than one or two channels may be needed. Also, the Commission is officially designating the dispatch frequencies 462.95 and 462.975 and "Med 9" and "Med 10", respectively. They previously had no designations. The Commission declined to restrict eligibility for licensing on the "Med" frequencies to use for medical emergencies only nor at this time to designate a frequency coordinator for the channels.

The FCC has established classes of equipment eligible for the new Part 15 authorization procedures. Present procedures, designed to control the amount of incidental radiation, include type-acceptance, where the equipment to be marketed is submitted to the commissions lab for testing, and type-approval, where only schematics, drawings and test data are submitted for approval. The new procedures, Notification and Verification, do not require the submission of any data unless the Commission asks for it. Because of either their high degree of compliance, or the little likelihood of interference, the new, simplified procedures will apply to TV's, FM Broadcast receivers and point-to-point microwave transmitters. Specifically excluded

from the simplified procedures are superregenerative-type receivers and, because of the likelihood of interference to land mobile communications and their broad range of emissions, scanners. Part 15, by the way, now contains an "official" definition of a scanner, "a receiver which automatically switches between four or more frequencies in the range of 30-890 mHz and which is capable of stopping at and receiving a radio signal detected on the frequency".

The Commission has denied a request by the U.S. Coast Guard and terminated a proposal to allow Coast Guard use of the frequencies 161.7 and 161.75 mHz. They had requested 161.7 for communication with foreign vessels and 161.75 for repeater use in search and rescue operations. Both frequencies are paired with 157 mHz frequencies in the International Marine Band, but in this hemisphere are used for land mobile use, specifically Broadcast Remote Pickup. (The 157 mHz frequencies are used simplex.) Commenters stated that careful coordination is now required among BRP users and Coast Guard use would disrupt activities on the relatively few BRP channels. Conversly, use by the Coast Guard of 161.75 (10 kHz removed from 161.76) could not be guaranteed in an emergency. Regarding the use of 161.7, the Commission noted that any foreign vessel capable of duplex operation only in this range will have channel 20 (161.6/157.0) which is available in this country and, in any event, certainly channel 16.

The filing date for cellular mobile telephone applications in the markets below the top 90 has been suspended. Since the Commission has proposed the use of lotteries in the selection of cellular licensees, the applications for these markets would be different. Any applications made by the March 1 deadline would probably require amendment. So they will announce a new filing deadline when the decision is made regarding the use of lotteries. Also, the wireline set-aside (the allocation of two blocks, one for wireline, one for non-wireline carriers), due to expire April 8, was also suspended until this issue is resolved.

The Commission has proposed amending Part 90 to allow the use of ten 72 mHz frequencies for low-power mobile use in the Forest Products Radio Service. The ten frequencies are those that are presently available for low power use in the Manufacturers, Special Industrial, and Railroad Radio services (see 3/81 column). They would be for use in mills, plants or at logging sites. The Forest Industries Telecommunications Council (FIT), the petitioner, states that the presently-allocated Forest Products frequencies, many of which are shared with other services, are heavily used and that the use of 12.5 kHz offset frequencies in the UHF band for portable use is impractical, since the equipment made for UHF is not rugged enough to withstand the logging environment.

Another proposal would extend the areas in which operation is permitted in the 216 to 220 mHz band for maritime communications systems. This band was allocated in 1981 for Inland Waterways Communications Systems (IWCS), automated, interconnected systems for voice and data communications along the Mississippi River and interconnecting waterways. (See 7/81 column.) Later this was extended to permit operation along the Gulf Intercoastal Waterway. (No system is yet on the air.) Now, they are proposing to add the areas up to 40 miles offshore, in the Gulf of Mexico, to the permitted areas of operation. Also, they would have to change the name, from IWCS to AMTS, "Automated Marine Telecommunications System", obviously, since it would no longer be exclusively "inland". There is expected to be demand for use of these systems by oil companies and other concerns in the Gulf of Mexico.

In response to a petition, the FCC is proposing to limit use of certain 12.5 kHz offset frequencies in the 460 mHz band for central alarm companies. Five frequency pairs, 460.9 through 461.0 (and 465.9-466.0) are reserved for central alarm station use in urban areas. When the Commission authorized the use of 12.5 kHz offsets for low power use in 1981, they did not limit the use of the offsets between the five alarm co. pairs - they may be used by any eligible in the Business Radio Service. This amendment would reserve the four frequency pairs between the present channels for central alarm use, with the same two-watt power limit, but the antenna height limit would be 20 feet above a structure, instead of above ground, as with the other offset channels.

Next month - the implementation of WARC-79.

FEDERAL GOV'T and ★ MILITARY ★

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:
Dennis Biagioli, 607 W. Pleasant Ave., Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

Hi! I certainly hope this finds you happily in the midst of (as they called it in the musical, CAMELOT) the lusty month of May. Now, don't forget that Webster defines lust as "feeling an intense desire." Doesn't that fit the feeling you get about this time of year? Well, don't just sit there -- give in to your lust (for finding new frequencies and their uses).

ARMY CORPS OF ENGINEERS

BOB RANKIN (KS-001) sent the following regarding the Army Corps of Engineers call signs in the Kansas City area:

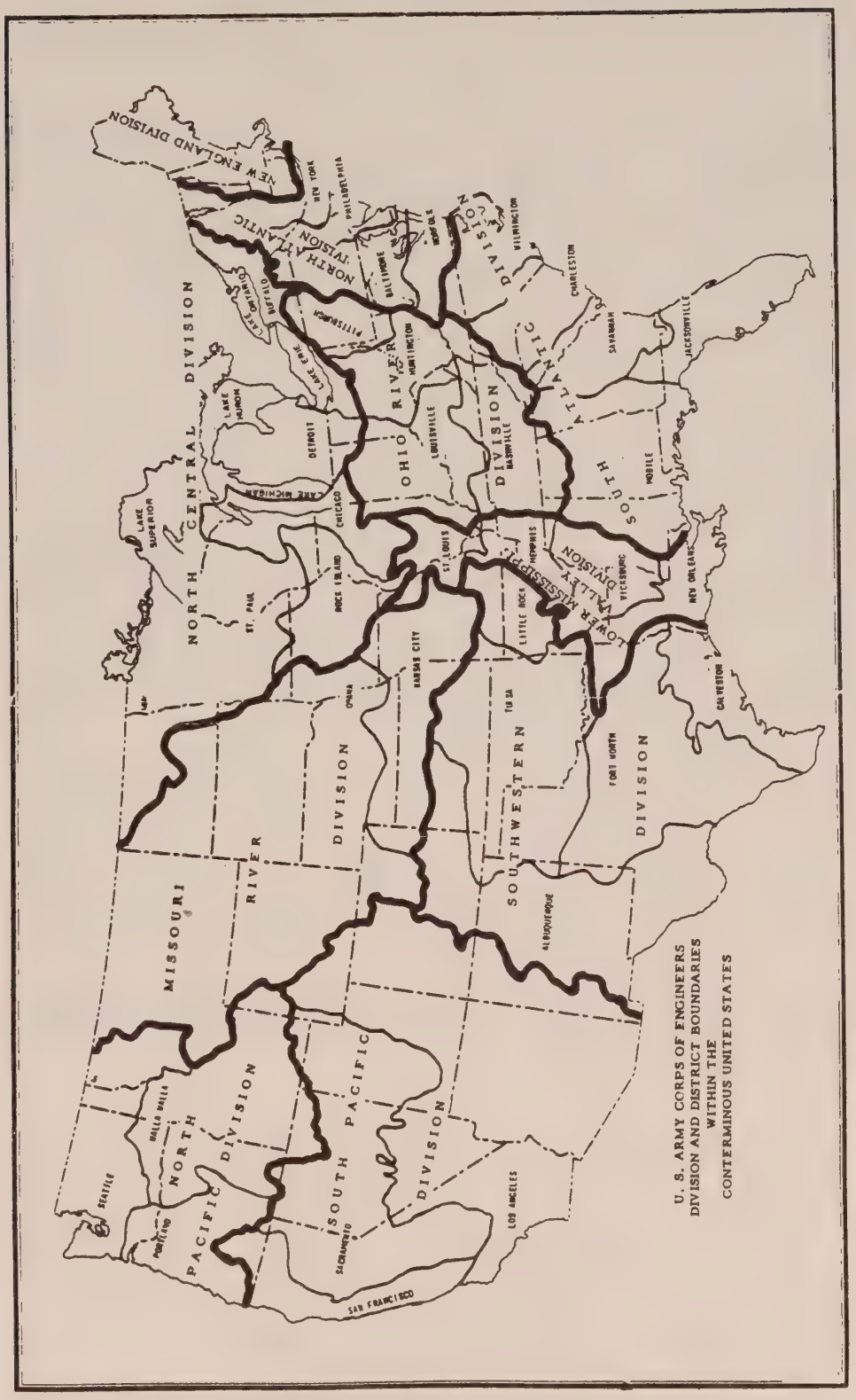
US Army Corps of Engineers -- 163.4375 out / 162.3500 in (formerly 164.200 in).
WUH-5 Kansas City, MO, USACE Headquarters

500	Plant Service	523	Pomme de Terre
510	Harlan Co.	524	Pomona
511	Truman Pwr. Plant	525	St. Joseph
512	Rayburn	526	Smithville
513	Clinton, KS	527	Stockton
514	Clinton Res., KS	528	Tuttle Creek
515	Kanopolis	529	Wilson
516	Kansas City area	530	Glasgow
517	Long Branch	531	Jefferson City
518	Melvern	532	Hillsdale
519	Milford	533	Truman
520	Napoleon		Waverly
521	Perry		Boonville
522	Gasconade	535	????

Bob says net control is WUH-5 in Kansas City, MO. All other lakes and dams in the net have numerical callsigns beginning with "5". He is certain that each of these should bear the prefix WUH, but only the numbers are used. NCS is able to reach most of these locations listed on VHF, using a repeater at Post Oak, MO, and perhaps others. Some of the more distant stations are worked on the Corps of Engineers HF net on 5015 kHz, usually Lower Side Band. The best listening time is during the morning hours when they report water levels, etc. The frequency is also used by USACE Rangers -- essentially law enforcement personnel who work closely with the local sheriffs and Wish and Game Commission enforcements in the area. Other traffic deals with flood control, etc.

Nearly all of us have, at one time or another, seen something relating to the Army Corps of Engineers. When I received these frequencies from Bob, I decided to do a little research to see exactly what the duties of the Engineers are.

The Commanding General, United States Army Corps of Engineers (CGUSACE) serves as the Army's Real Property Manager, performing the full cycle of real property activities (requirements, programing, acquisition, operation, maintenance and disposal); manages and executes engineering, construction, and real estate



In "The U.S. Government Frequency Listings, Frequency Reference Guide," is found a map of the Corps of Engineers Division and District Boundaries.

programs for the Army and the United States Air Force; and performs research and development in support of these programs. CGUSACE manages and executes Civil Works Programs. These programs include research and development, planning, design, construction, operation and maintenance and real estate activities related to rivers, harbors and waterways; administration of laws for protection and preservation of navigable waters and related resources such as wetlands. CGUSACE assists in recovery from natural disasters.

NEW ENGLAND PARKS AND FORESTS

The following frequency contribution dealing with Federal Parks and Forests in New England came anonymously in an envelope pastmarked in MA:

Out/Simp.	Input	Usage
164.1750	164.7250	Arcadia Nat'l Park, ME
171.7250	171.5250	Cape Cod Nat'l Seashore, MA
169.1750	169.9750	Green Montn. Nat'l Forest, VT
164.4250		Minute Man Nat'l Park, MA
155.0100		Ditto -- Park Sec. to local PD
166.9500		Nat'l Historical Park, Boston & Lowell, MA
171.5250	171.5750	White Montns. Nat'l. Forest, NH

AIRCRAFT BOOKS

Two books that the military aircraft enthusiast may find interesting are:

United States Military Aviation: The Air Force
by Robert J. Archer

U.S. Military Aircraft Designations and Serials (Since 1909)
by John M. Andrade

Both of these are published in England by Midland Counties Publications, but are available here from various "air buff" specialists. I obtained my copies of both by mail from "Historic Aviation", 3850 Coronation Road, Eagan, MN 55122.

Both are valuable aids in identifying aircraft by use of serial / tail numbers. The Andrade book covers all services. While the Archer book only deals with Air Force, it does contain a number of high quality color photographs. Archer also presents detailed organization information, including base locations and aircraft identification information, for Strategic Air Command (SAC), Tactical Air Command (TAC), Aerospace Defense Command (ADCOM, prior to TAC takeover on 1 June 1979), Alaskan Air Command, US Air Forces in Europe, Pacific Air Forces (PACAF), Military Airlift Command (MAC), Air Training Command (ATC), Air Force Reserve, Air National Guard, Air Force Systems Command (AFSC), Air Force Logistics Command (ALC) and the Air Force Communications Service (AFCS).

If you know the type of aircraft and the tail number, you can find the unit and bazse to which it is attached. For example, a particular aircraft looking like a civilian Boeing 707 but with a very distinctive paint job carries a tail number of 27000. It's military designation is a VC-137C (72-7000), the USAF personnel transport version of the Boeing 707, and is operated by the 89th Military Airlift Wing at Andrews Air Force Base, Maryland, for Presidential use, and is known by its call-sign "Air Force - One." This is but an example of the information available in these publications.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

The Archer book also has an interesting appendix regarding NASA and its aircraft. NASA (National Aeronautics and Space Administration) has frequency listings in the Grove "Federal Frequency Directory", the IRAC "unclassified" microfiche, and other sources. However, although most of us have heard of several of NASA's bases, most do not know each has a separate function.

NASA has six aviation bases, and four with lesser aviation activities. The majority of aircraft have been modified to enable them to carry out special duties. One example of this is the ex American Airlines Boeing 747 that is operated by the

Johnson Space Center, but is based at Edwards Air Force Base, California. It has special attachments fitted to the roof of the fuselage to transport (and air launch for test purposes) the Space Shuttle craft.

The six primary locations are:

Wallops Station, Wallops Island, VA; conducts launch experiments.

Langley Research Center, Langley AFB, VA; provides technology for manned and unmanned space exploration, and for the improvement and extension of performancye, utility and safety of aircraft.

Lewis Research Center, Cleveland, OH; undertakes studies into aircraft and rocket propulsion and electric power generation in space.

Ames Research Laboratory, Moffett ;field NAS, CA; conducts laboratory and flight research into all aspects of aviation.

Dryden Flight Research Center, Edwards AFB, CA; studies the entire envelope of flight research.

Lyndon B. Johnson Space Center, Houston, TX; operates Mission Control for manned space flights, and controls the design and development of manned space flights and astronaut training.

The four remaining locations are:

Goddard Space Flight Center, Greenbelt, MD; responsible for a variety of unmanned earth-orbiting satellites and sound-rocket experiments.

Jet Propulsion Laboratory, Pasadena, CA; investigates deep space and the planets.

Cape Canaveral Space Center, Cocoa Beach, FL; launches manned and unmanned space vehicles.

George C. Marshall Flight Center, Huntsville, AL; designs and develops the launch vehicles for major space missions and advanced space transports.

I think that wraps things up for another month. May the month of May be good for all. See you next month.

73's -
Denny

GOVERNMENT RADIO SYSTEMS
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Public Safety systems 3500 entries
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Net names Inputs/Outputs

To receive this attractive 64 page
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San Jose CA 95125

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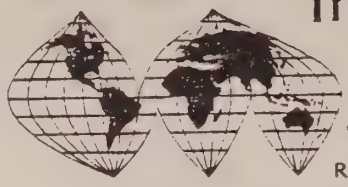
International



This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to: Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902.

Well, it appears that we are entering into a new era of receiver design with the appearance of the JIL SX-400 and the Regency 5000/ AOR AR-2001. An ad in the March 1984 issue of Popular Communications shows the SX-400 with a capacity to receive as high as 3.7GigaHertz with an add-on RF module. That would certainly present some very interesting possibilities. Below is an ad from a Japanese publication for the AOR receiver. There is just enough readable information (for non-Japanese speakers) to know that this is going to be a popular set. The 'New Arrivals' column of the March 1984 issue of Monitoring Times states that the AOR and the Regency are the same, something we've suspected for some time.

25~550MHzをもれなくカバーするオールバンドレシーバー

model AR2001 新登場

最新の電子部品を駆使した画期的な電子回路を採用.

感度, 二信号特性, 選択度, スプリアス特性等, 通信機と同等の性能を実現.

NARROW FM(業務・アマチュア通信), WIDE FM(TV FM放送),
AM(VHF航空無線・CB無線)など数多くのモードが受信可能.

●受信周波数帯域 25MHz - 550MHz連続受信可能 ●周波数サーチ間隔 5kHz, 12.5kHz, 25kHz ●受信感度 Narrow FM 0.3μV 12DB SINAD Wide FM 1.0μV 12DB SINAD AM 0.5μV 10DB S/N ●選択度 NFM ± 7.5kHz/6DB, ± 20kHz/70DB WFM ± 50.0kHz/6DB, ± 250kHz/60DB AM ± 5.0kHz/6DB, ± 10kHz/70DB ●スプリアス及びイメージ妨害比 −50DB ●寸法 138(W)×80(H)×200(D)mm ●重量 1.1kgs

AOR

資料ご希望の方は下記へ

株式会社 エーオーアール 〒110 東京都台東区東上野1丁目2番9号三浦ビル ☎ 03(835-7...

Just to let you know just how good and different this AOR set is, let me present some parts of a review of this receiver which appeared in a recent issue of Amateur Radio Magazine, a British radio magazine. Angus Mc Kenzie is the reviewer and the title of the review is-"Best Scanner Yet?" Mr. Mc Kenzie writes:

'We have seen many general coverage VHF and UHF receivers over the years at a vast variety of prices available both to the professional and to the domestic user. Some of these receivers have true general coverage with no gaps in their range, such as the Eddystone 770R, 770U and 990R, while others fall into the scanning range of the Bearcats and SX-200. We now have a receiver designed with very new concepts which I suggest not only outclasses in almost every way the receivers mentioned, but also some specialised models available only to the professional, costing at least ten times more...
Almost every other receiver covering part of the large range of this unit uses a 10.7MHz first intermediate frequency, and it is in this area that the AR2001 is almost revolutionary in the domestic field, for the first IF is at 750MHz. The local oscillator rather surprisingly runs from 775 to 1300MHz without any aggro. This virtually eliminates the dreadful image problems which beset all the other receivers mentioned.... The synthesized local oscillator is extremely complicated, employing many bypass filters which allow it to run in various bands without harmonics causing problems...'

Mr. Mc Kenzie goes into some considerable detail in describing the makeup of the set from the inside out and performs some very detailled, subjective, electronic tests. He concludes by saying:

'I have had a lot of fun with this set, and whereas I regard almost all its competition as being of toy quality, this set should be considered as superb for its intended purpose, and coming well up to the performance of professional requirements. If one bears in mind the amazingly reasonable price tag, then it is a remarkably good buy,which will displace almost all the competition if enough are imported... The design of the AR2001 is brillantly clever, and the outstanding performance is mainly due to the surprising choice of the 750MHz first IF. The AOR design of first local oscillator is remarkable for such an inexpensive set,and it is fascinating how the designers have overcome so many problems...Many other manufacturers would do well to have a long look at this rig.'

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Several people have asked again about the Kentronics Log Book. This is a menu driven program on tape and stores date, time, callsign, signal report, etc. It sorts by Callsigns and location and has a printer dump of the log (part or all). It is available for the Timex 1000 and 1500 and is being converted for the 2068. It is also available for the TI99/4A. This is a very versatile program and can easily be adapted for short-wave or amatuer use. Price is $10.50 postpaid. I have a note here that this log is also available now for the VIC-20 and the IBM.

Kentronics'latest package is the CW receive package for $60.00. The unit inserts between the Timex and the memory pack and requires only 1K of RAM. There are several other computer packages available for the amateur, SWL or monitor. A SASE will bring the entire array of product information to you. Kentronics, Inc.,P.O. Box 586, Vernon, AL 35592.

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SWEDEN

Here is the first of several articles on monitoring in Sweden. The writer lives in the southern part of Sweden called 'Småland', or little country and it is from this part of Sweden that so many people emigrated to the USA back in the very bad times that were experienced from 1860 thru 1920. There is plenty to listen to in Sweden, even way out in the country. Sweden is second or third, after the US, in the number of mobile

radios per person. Interest in two-way radiocommunications has increased enormously for the general population since the end of the 1960's. Unfortunately, this increase in public awareness and activity has also made the communications more closed and secretive. Digital Voice Protection (DVP)has become a popular adjunct to police broadcasts. This method of transmission protection has also spread to other guard and security companies, as well as to other agencies where protection of the communication is necessary.

During the past decade, several attempts have been made to prohibit the use of scanners by the 'general citizen'. Fortunately, none of these attempts has been successful.

From the southern-central part of the country, there is the potential to be able to pick up signals from all over the southern part of Sweden, plus some of the surrounding countries. Under normal conditions, base stations from 140-200 kilometers away(88-125miles) can be monitored. From the Swedish westcoast, stations in Varberg and Halmstad are heard. From the south, Helsingborg and Kristianstad and usually Malmö and Copenhagen (Denmark) are heard. From the east, Karlshamn, Karlskrona, Kalmar and Oskarshamn are readable as are Borås, Jönköping, and Linköping from the north. All this is valid for the 80MHz band. At 160MHz, the distance will drop to 50-70 kilometers(32-44 miles). On UHF, the distance for good signals would be approximately 80-100 kms.(50-63mi.)

With good conditions, communications from almost the entire country of Denmark and the northern part of West Germany can be heard! When skip conditions prevail, transmissions from West Germany, Italy, France and Spain can be heard on the frequencies between 68 and 87.5MHz. With these conditions, sometimes Denmark and West Germany can be heard in the 460MHz band.

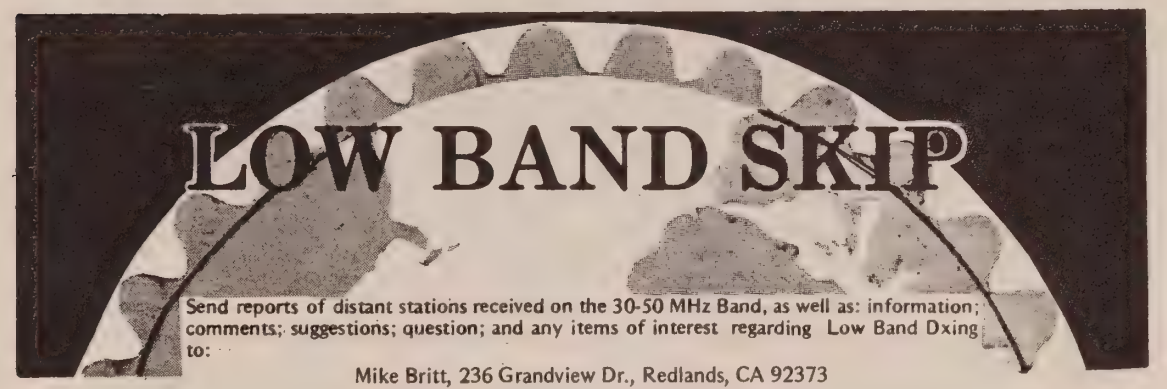
In Sweden, five frequency areas are used for two-way communications. Below are the areas and the general uses of each:

31.7 - 41.0 MHz	very little use 25KHz steps
68.0 - 87.5	widely used throughout the country 25KHz steps Police and Fire departments ambulance, taxi-cabs, trucking, electrical power, construction, building and business companies. Road maintenance. Cities. Mobile phone. MTB/Mobile phone.MBS paging.
146.0 - 174.0	widely used in the big cities, some out in the country. New licenses. 25KHz steps Police- departments in Stockholm and Gothenburg. Taxi companies in the bigger cities. Electrical power, security and guard, contruction and building and business companies. Bus transportation- cities.
380.0 - 420.0	very little use 25KHz steps Police departments in Stockholm, Gothenburg and Malmo.
420.0 - 470.0	widely used, even out in the countryside 25KHz steps Railway, security and guard, taxicab and business companies. Airports, bus transportation. Mobile phone. MTD and NMT/ Mobile phone.

The maximum output power for transmitters on frequencies between 31.7 and 174.0 MHz is 100 W ERP for both base and mobile stations. Mzximum output power for transmitters on the frequencies between 380.0 and 470.0 is 1000 W ERP for base stations and 200 W ERP for mobile units.

All communications in Sweden, except in the international aircraft band of 118.0- 136.0 MHz. are FM.

to be continued....שלום


LOW BAND SKIP
Send reports of distant stations received on the 30-50 MHz Band, as well as: information; comments; suggestions; question; and any items of interest regarding Low Band Dxing to:
Mike Britt, 236 Grandview Dr., Redlands, CA 92373

Greetings!

This month, a long overdue article is finally seeing print. (It was delayed for a number of reasons, primarily my being out of the country, and the antics of our U.S. postal service!). It is, however, still of great significance. Read on.

MILITARY OPERATIONS IN CENTRAL AMERICA HEARD VIA SKIP!

- Joint U.S./Honduran War Games on VHF Low Band -

During this last winter's F_2 skip period, Chuck Robertson (IL-141) began to concentrate on skip signals in the area of 30 to 32 MHz. He did this mainly for the reason that the skip above 32 MHz was poor to non-existant for most of this winter (a fact many of us were dismayed to discover). While it was no surprize to find lots of activity on these frequencies, the subject of many of those transmissions turned out to be a very big surprize indeed. Military tactical operations seemed to be on nearly ever other frequency! At first, such traffic did not seem so unusual, since such military tactics are often heard within the U.S. But upon closer inspection, Chuck realized that he was hearing skip from Central America - where the U.S. has been heavily involved in military activity; some being joint training operations with the government of Honduras, and others being the real thing!!

While Chuck had before heard Nicaraguan rebels on 45.44 MHz (first mentioned in the Low Band Skip Column in 1982), he had never before heard the U.S. military in Central America in any skip receptions (at least, not to our knowledge). This winter, he not only heard more scrambled transmissions, but also the U.S. Marines in joint military excercises with the Honduran Army. During the months of October and November, Chuck was listening to these war games on an almost daily basis. Interestingly, no one else has reported receiving this skip. (This may be due to the simple fact that many scanners do not extend below 32 MHz).

The war games in Honduras, known as "Big Pine One" and "Big Pine Two", were held in October and November of 1983, and were in no way secret. In fact, at the time they were going on, reports on the activity were in the news daily. It was, in fact, almost possible for Chuck to listen to skip signals from the war games in the morning, then watch the TV news that evening, and see what he had been hearing! Another major event occured during this same period: the U.S. invasion of Grenada. While

Chuck tried hard to monitor any possible traffic relating to the Grenada incident as it occurred, he says, "the skip conditions were very, very poor during the invasion of Grenada, and I didn't hear anything at all." We can't be sure that the U.S. Marines didn't use VHF low frequencies during the Grenada invasion, but nothing relating to the incident was ever reported as monitored above 30 MHz.

In Central America, however, the radio traffic was really hopping! The first real indication of military use of the low band in Central America came in September, 1983. It was on 9/15/83 that Chuck heard a skip on 32.00 which was obviously of a military nature. This was a wide-band FM transmission, in Spanish! The very next day, Chuck again heard such transmissions, but on 30.25, 30.30, and 30.35 as well as 32.00. Then, on the 11th of November Chuck heard another wide-band FM signal, this time on 32.30. At the same time, 30.20 brought in Time Division Multiplexing (TDM) scrambling, also a skip from Central America. All of this signaled something very important: that the army of one or more Central American country was being supplied with U.S. tactical military radios. These countries didn't just build their own highly advanced radios and start using them overnight. It's well established that none of the radios used by the small armies in that region even had the capability of using the VHF low band -- until the U.S. started suppling NEW and more sophisticated radios (covertly, through the C.I.A., in the case of the gear observed in use by the counter-revolutionaries in Nicaragua).

Specifically, the sudden overtake of the 30-32 MHz area of the low band (as well as some higher frequencies) signaled the preparation for the war games which were about to occur in Honduras. Since these were "joint" operations, coordination between the U.S. Marines and the Honduran Army was necessary. Thus, to have radio communications coordinated, the Honduran troops were supplied with U.S. radios, which accounts for some of the wide-band Spanish Chuck suddenly began to hear on the low band. In some instances, the Marine communications officers were heard conversing in English with what were obviously heavy-accented Hondurans. Thus the military skip from Honduras began to increase, and Chuck heard more and more each day. His loggings from 10/15/83:

30.00 Wide-band FM; US Marines; "Survey One"
30.05 " ; " ; "Survey"
30.20 " ; " : "Survey Six"
30.45 " ; Spanish and English comms.

31.40, 32.00, 32.20, 33.00, 33.10, 34.25, 34.60, 34.70, 36.53 — All of these channels had traffic which Chuck said was obviously war games. He says conversations related to "infantry walking along with tanks, mortars being fired, and other such maneuvers. I.D.'s heard included: "Juliet 64"; "Lima-2-Papa";"Uniform-64-Oscar"; "Charlie-96".
Of particular interest was a conversation heard on 34.25 in which an English speaking Honduran stated he was transmitting on a "AN/VRC-46 with a whip." According to a article in the February 1983 edition of Popular Communications on military radio gear, the radio referred to is for "short-range vehicular and fixed station units for general tactical use." It has ten channels, covering from 30 to 76 MHz, with an output of 10 to 35 watts. If we needed any proof as to the origin of the skip Chuck was hearing, I'd say that was it!

The following day, Sunday 10/16/83, Chuck heard Spanish, again wide-band FM military, on 30.65. The frequency 32.00 was very active, with communications in English between Honduran and U.S. officers. At the same time, 30.31, 30.35, and 30.39 were active, transmitting a continuous carrier accompanied by a high pitched tone. These appear to be guard tones, from what Chuck has recorded of thses transmissions. No voice traffic was heard, and all left the air at exactly 18:00 CST. It is unclear what relation, if any, these had with the military excercises. While Chuck was hearing these three carriers, he was receiving another skip on 30.40 of a similar nature. This was also a carrier with a high

pitched guard tone, but this carrier was not continuous. On this frequency, Chuck heard U.S. military voice traffic - apparently a duplex channel, since only one side of the conversation was heard. While the voice traffic was at first clear, the operator later switched to SSB. On the frequency of 30.20, Chuck also noted hearing an SSB broadcast at the same time he was hearing the signal on 30.40. This might have been the other half of the duplex channel. Chuck notes that many of the military radios equipped for AM/SW/SSB cover a range from about 200 KHz to 32 MHz, while the FM units cover 30MHz to 76 MHz in the low band. This might explain why SSB is sometimes heard in the 30 to 32 MHz frequencies.

The war game activity continued throughout the month of October and into November. The evidence that all these skip transmissions were fromHonduras became greater and greater. On November 21st, Chuck heard U.S. aircraft communicating on 30.00. One pilot was heard to say he had received "permission from the Hondurans to participate." As Chuck noted, "you couldn't ask for a better confirmation than that!" On that day, Chuck was hearing skip from joint maneuvers being conducted near Puerto Castillo, on the northern coast of Honduras. Some 1,000 U.S. troops and 500 Honduran soldiers were participating, according to reports. The pilot on 30.00 identified himself as "Whisky 27", and he was also heard on 30.45 MHz. Convoy traffic was heard on 30.15, and Spanish speakers using wide-band FM were heard on 32.15. On 30.55, Chuck heard "Bluebird to Viking", as well as other IDs.

That same weekend, Nicaraguan rebels and Nicaraguan army troops fought in the town of Cardenas on the Costa Rican border. Chuck was continuing to hear scrambled Spanish transmissions, as well as other Spanish signals with guard tones. These may very well have been transmissions from the rebel Contras, using U.S. supplied radio gear. Three very active frequencies with Time Division Multiplex scrambling were 30.20, 31.70, and 32.60 MHz. All three,have been active since first heard last summer. All seem to have Spanish transmissions, although sometimes it is hard to tell, other than to make out the sounds of certain syllables. Without special decoding equipment, we really can't tell what these are all about. On one occasion, a 32.60 broadcast became a clear transmission, and Spanish was heard for several seconds before scrambling resumed. Digital Voice Processing (DVP), which is another type of scrambling, was also heard on a number of frequencies at that time. This sounds like a lot of very loud static, and it's hard to say who it's from, although U.S. military is the most likely source. The frequencies on which DVP was heard: 30.05 30.40, 30.85, 30.95, 31.93, 31.96, 31.96, and 32.00 MHz.

A new twist to theHonduran skip came on Sunday and Monday. December 4 and 5. On those days, it was reported by the Associated Press that the Nicaraguan government had charged Honduras with staging attacks on Nicaraguan "fishing boats" and that camouflaged aircraft hit a seaside customs post, killing two employees. Up north in Illinois, the military skip on 30.00 to 30.50 became very active on those two days, with much of it in Spanish. Says Chuck: "I feel that I was almost certainly monitoring Honduran gunboats and planes." He says he thought at the time that it was only war games, but did also think it had a different sound about it. We can't be sure (especially since Honduras never admitted that they staged such attacks), but there's a good chance Chuck heard real battles in progress! He reported activity on: 30.00, 30.05, 30.10, 30.15, 30 20, 30.40, and 30.45.

"Big Pine Two" joint U.S.-Honduran military excercises are due to end in March of 1983. In total, the war games have involved more than 5,000 U.S. troops, as well as an equal number of Honduran soliders. This is not the end of the joint military excercises, however, for another operation is set for this summer. Dubbed "Big Pine Three", it will begin in July, and will be held in the mountainous region where the boarders of Honduras, El Salvador, and Guatamala come together. Troops from each of these nations are scheduled to participate in the operation which will be a U.S. attempt to encourage military cooperation beteen the the countries.

Low Band Skip continued

As Chuck says, "without a doubt, military skip has been the most interesting part of this winter's propagation." And the possiblity for further listening by the rest of us RCMA members is very good for the future, since skip in the 30 to 33 MHz area should continue for awhile. We can expect the usual E_s skip this summer, so keep monitoring! The possiblity for hearing Central America via night skip is good as well, so don't miss out on the action.

Next month, still more military skip, and a compiled list of the Central American military frequencies active this last winter. Also, military skip from within the U.S. itself, as well as a look at some more "mystery" transmissions.

Scott (GA-005) tells of skip he received on the VHF high band on 11/18/83. Scott had been listening to Dobbins AFB on 165.135, however, at about 10:20 CST that day, he began to receive another station which IDed as "Redstone". Scott says: "They were obviously a military base security. The times they gave were Central Standard. When they checked registrations, the tags were usually Alabama tags. Once they called "Birmingham". I assume 'Redstone' was probably Redstone Arsenal, and the actual frequency was 165.1375." It also seems that Scott wasn't the only one hearing the skip, as he heard radio operators at Dobbins pondering over the strange reception of 'somebody called Redstone and two or three more stations.' Scott continues: "At that time Redstone told DAFB they were receiving DAFB. Dobbins AFB then asked Redstone if they knew what the trouble was caused by. Redstone replyed that they thought'atmouspheric conditons 'are just right!."

What Scott was hearing was no doubt Tropospheric skip, which is not too uncommon on VHF high and UHF. The signals are usually "trapped" by ionized conditions which result from inversion layers. This type of skip most often originated in an area where thunderstorm and even tornado activity is occurring. The same conditions which result in smog inversions will also result in such skip.

CRYSTAL CLEAR IMAGES From Bob(MD-029):

You did manage to catch my attention with your column in the November (1983) Newsletter. Specifically the part about Scott (GA-005) placing the "high-band" crystal into the low-band side of his Pro 52. There is a formula and it is fairly simple. Apparently crystals cannot be "cut" to generate a "beat" frequency for use with high-band signals. (The crystals just become too, too thin!) So here is how crystals operate for superhetrodyning frequencies above the normal low-band. This "formula" will apply to the Pro 52 and it is quite possible it would apply to other models and/or brands, as well.

The high band "oscillator" uses a signal which operates 10.7 MHz below the desired receive frequency. To receive a frequency of 161.52 MHz, the oscillator generates a signal of 150.82 MHz (That's 161.52 minus 10.7). As mentioned, since a crystal cannot be cut that thin, it is cut to operate at a frequency one third of 150.82 or 50.27333 MHz. (That's 150.82 divided by 3). The higher "oscillator" frequency (150.82) is achieved by running the 50.27333 MHz signal thru a circuit which generates rich harmonics, one of which is 150.82! The third harmonic, in other words. The high-band circuit filters out all of the harmonics except the 150.82 MHz signal which "beats" against 161.520 MHz to obtain the intermediate frequency signal of 10.7 MHz. Thus the high-band operation.

Now for the low-band. Here again, the crystal operates at it's "primary" frequency of 50.27333. Only this time, no "frequency multiplication" takes place. The signal (50.27333 MHz) is used "as is." The low-band is geared to operate on a 10.7 MHz intermediate frequency, also, only this time the oscillator works above the desired receive frequency. We simply subtract 10.7 from 50.27333 and, walla, 39.57333 MHz is received which was close enough to work on 39.58 MHz.

This same method (frequency multiplication of lower crystal or even synthesized signals) is used in all receivers and scanners. Howvever, UHF reception is accomplished a little bit different. Rather than use an oscillator signal in the UHF region to "beat" the radio frequency "up" or "down" to the intermediate frequency the oscillator signal "beats" the UHF signal "down" to another band already configured in the system. For example, the tenth harmonic of a 42 MHz crystal (420 MHz) is used to "beat" the 450 to 470 MHz range of radio frequencies down to the 30 to 50 MHz range. Simply subtract 420 from 450 (30 MHz) and again, 450 from 470 (50 MHz). Neat, isn't it?

Also from John (MD-006) came this formula for the question of how Scott (GA-005) was able to receive 39.58 via a crystal cut for 161.52 when that crystal was put in the low band side of his scanner. John says:

"...and I just turned the page and saw your question about the mystery of the 161.52mHz xtal. There is indeed an easy formula, as I am sure others are also pointing out to you...

rcv fq=	161.520
minus IF	10.7
	150.820

radios triple the xtal frequency for vhf reception, therefore you must divide the 150.820 by 3 to get the true xtal frequency. This will be the actual xtal frequency, not the receive freq.

	150.820
divided by	3
xtal freq=	50.273

For low band reception, there is no xtal frequency multiplication. Simply deduct the IF (10.7) from the xtal frequency.

	xtal freq=	50.273
subtract	IF	10.700
		39.573

This frequency, 39.573, is certainly close enough to 39.58 that a scanner will receive it.

Using various versions of these subtract-and-divide formulae, you may find many of your low/high/uhf crystals may serve double (or triple) duty picking up transmissions in other bands."

And finally, Rick(PA-027) wrote, echoing the words of both Bob and John. In addition, he illustrated how the crystal cut for 50.273 is used for both VHF and UHF:

1) In the high band slot -50.273 crystal:

50.273 - crystal freq.	150.82
x 3	+10.7 - Intermediate Freq. (IF)
150.819 - multiple	161.52
(150.82)	receiving Freq.

2) In the UHF slot - 50.273 crystal:

50.273	452.457
x 9	+ 10.7
452.457	463.157 or 463.15 approx. reception

As for the low band, Rick adds that a crystal for 39.58 should actually be 50.28 for scanners with a 10.7 IF; and 50.38 for those with a 10.8 IF

So, depending on what band the crystal is placed in, the radio will multiply it out to a frequency within the band - in Scott's case, the low band and 39.58 MHz - which happened to be active with skip at the time.

Thanks to Bob, John, and Rick for all the information.

I'M SORRY: THAT ANIMAL IS EXTINCT

Since August of last year, myself, and several others have been trying to find some information about the call sign "KGD 204" (don't bother to check FCC Microfiche; it isn't there). This all started as a simple request from Alan (MD-069) who explained that at the Montgomery County, Maryland Fire/Police dispatch center, there is "a very old telephone radio" used for civil defense. According to Alan, "every other county in Maryland and Delaware has one of these CD phone-radios, and no one knows the frequency - not the Civil Defense, or the dispatch center!" Apparently the radios serve as back-ups to a CD telephone net. The particular radio in the Rockville dispatch center (KGD204) is for channel "G" ("George"), with each letter channel used for a different geographical area, Alan says.

Alan's request was to find what frequency KGD204 was assigned to. While there are many CD frequencies in Maryland, none of them show a call sign of KGD204, and checking FCC Microfiche forward and backward, that call sign is never listed. (And no, this wouldn't be a sensitive frequency).

After much searching and conferring with knowlegdable persons, including some with the FCC, there is one logical conclusion: the license is probably expired. This would explain why it is no longer found in the FCC microfiche - it has long since been purged from the active files.

It seems rather surprizing, but it's not the first time I've run accross an expired license which is still be "used". While this doesn't explain all those call signs we haven't been able to trace, it certainly must account for at least a portion of untracable IDs.

Marketplace

Gary M. Darcy, Editor

Members may advertise, free of charge, items wanted, items for sale, and items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members resulting from ads printed in this column. Send to:

RCMA MARKETPLACE, c/o Gary M. Darcy, P.O. Box 1329, Palmdale, CA 93550.

Please be sure to include your membership number.

All Marketplace ads will be accepted ONLY on special forms available from this column's editor. Send a self-addressed STAMPED envelope (business size) to the address above to receive a supply of forms. Foreign members do not need to include postage on envelopes they send.

FOR SALE OR TRADE: New RF3100 and used DX-300 SW receivers; new Bearcat 100 programmable scanner; new Grove Scanverter (UHF aircraft); Bearcat crystals. Sell or trade for Bearcat 300 or other 30 to 50 channel scanners. Contact: LARRY SNYDER (CO-039), P.O. Box 315, Morrison, CO 80465 or phone 303-979-2856.

FOR SALE: Bearcat BC-300, 50 channels, like new, $275.00. Motorola 1121-TRC-87, 225-400 Mhz, excellent condition, only 100 made, $275.00. Regency MR-10, 150-175 Mhz, excellent condition, $30.00. Grove Scan-Verter for aircraft scanner, 225-400 Mhz, like new, $50.00. Hallicrafters "Civic Patrol" 30-50 Mhz, minor repair, $30.00. Surplus R-278/B(2), whole or parts, $100.00 each. You pay shipping on last item only. Contact: ROBERT LEARY (OH-093), 67 Eber Ave., Akron, OH 44305 or phone 216-376-2402.

FOR SALE: Bearcat 260. New in box. $210.00. Contact: CRAIG THOMPSON KD6PN (CA-VE-011), 978 E. Bower Way, Thousand Oaks, CA 91360 or phone 805-496-6552 or 805-527-2260.

FOR SALE: Bearcat 101. Needs scan/manual switch otherwise works well and is in good shape. Will trade for BC-210 or other scanner in good condition. Contact: FRED SHEEHAN (PA-189), 12 Kern St., Collingdale, PA 19023 or phone 215-237-9033.

FOR SALE: Midland 13-950. 16 channel, 8 hi-low, 8 UHF. Excellent condition. Will consider trade. $95.00. Contact: FRED SHEEHAN (PA-189), 12 Kern St., Collingdale, PA 19023 or phone 215-237-9033.

FOR SALE: Realistic crystals. Will also work in Regency & Craig scanners. $2.00 each. SASE for available frequencies. Contact: FRED SHEEHAN (PA-189), 12 Kern St., Collingdale, PA 19023 or phone 215-237-9033.

FOR SALE: Tennelec MS-2 Memoryscan. Works well for what it is. 16 channel. $125.00. Contact: MARKETPLACE EDITOR.

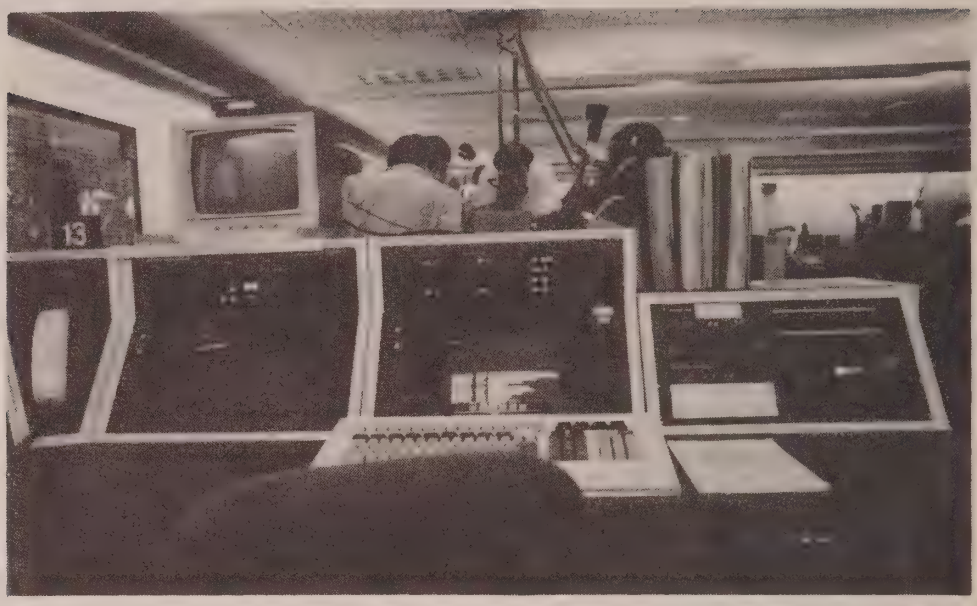
photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 x 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to:

Hugh Stegman, 11622 Exposition Blvd., #2, Los Angeles, CA 90064

This month, your user-friendly Photo Dept. takes a pre-Olympic look at the best communication setup in southern California. This is the California Highway Patrol's Los Angeles Communication Center. It covers the entire L.A. county and then some, from a nondescript, tan building near downtown L.A.. Some nine VHF-low pairs are used, plus VHF-high band mutual aid. Everything is computer-assisted.

Our first artistic (i.e. underexposed) photo shows the supervisory console, with around a third of this huge room behind. The person sitting here is king of southern California. He or she can listen and talk over an elaborate radio system called "the link", covering just about the whole southern half of the state over CHP's low band "blue" channel. The link also reaches nearly all other agencies on CLEMARS - the busy California Law Enforcement Mutual Aid Radio System on 154.920 MHz. Pursuits routinely switch to the blue channel, as CHP follows the suspect until he runs out of gas. Other dispatch positions have an emergency light, and the link operator then connects up with their consoles. Those with especially good vision may spot the Regency M 100 above the link console. It functions as a bookend and LAPD monitor receiver.



Next shot shows a typical dispatch position. There are around fourteen of these. Gear is Motorola, with some nifty additions. The emergency light is at top left, behind the "lucky" number. The 3M "instant recall" at right allows replaying of selected radio traffic by tape loop. Of course, all audio is recorded on a battery of low-speed machines, one of which is seen in the next photo.

Next shot shows CHP's mainframe computer. This machine does all the usual CAD chores, plus some extra bells & whistles. It picks the best base station for outgoing dispatches, and prioritizes incoming phone calls. For some reason, the landline call boxes on county freeways have a low priority. Stalled motorists can get lengthy holds. So when the county's 911 system is finally up and flying, LAPD will screen CHP calls. However, LAPD has delayed 911 implementation until after the Olympics, while new personnel are trained and their own, highly ambitious, "X" comm system is debugged. 911 is up elsewhere.

Our last two shots come from Mike (ID-001), our Public Safety-California editor. First is of "CHP 50," the helicopter assigned to southern California. Its primary assignment is traffic observation, and personnel can be monitored daily as they pass timely info. For the Olympics, CHP will assign six of its remaining seven helicopters to L.A., leaving one for the rest of the state (and it will be tied up at the San Francisco convention!).

The car is one of the notorious CHP Mustangs, used for freeway patrol. Note the low profile and lack of visible light bars, etc. I drive a lot slower knowing these guys may be lurking back there. The cars have had some problems with wet weather stability, but they are the first CHP units in a while that can't be outrun by normal vehicles. Of course, things like the Ferrari Berlinetta Boxer (220 MPH - $175,000) can still smoke the Fords off, but in the immortal words of one officer, "They can't outrun the Motorola".

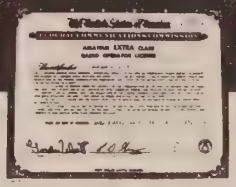
The Motorola in this case carries low-band, with statewide "blue" backup, and VHF - high for CLEMARS and the "extenders" (HT's with a vehicular repeater). Most cars also have Regency scanners.

Avid Photo Dept. readers have now seen every major comm facility in L.A., except for LAPD "X" (even officers can't go in there) and LAFD "OCD" (see p. 57 of the Feb. '81 Newsletter, or "Code Red" reruns). So now you're all ready for the Olympics, right? Wrong. A few temporary facilities are being set up. I'll try for shots of at least the buildings, since the Newsletter's early deadlines probably preclude anything of the insides until after the Games.

Brave souls intending to join our party this July should arm themselves with the southern California detail edition of POLICE CALL. It's pretty good. If people are really interested, I'll also copy off my own freq files around June.

Good Lord - another long Photo Dept. Gotta go. See you next month.

Get A FCC HAM LICENSE In Just 9 Weeks!



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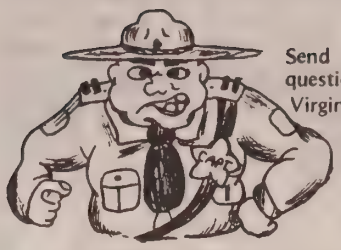
Public Safety

This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for police, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

STANDARD TEN SIGNALS

The RCMA recognizes that most Public Safety Departments use "ten signals" as a part of their standard communication procedure. Our editors will not print the more common signals, which are listed below, but will note additions and differences when listing a departments "ten signals". By not having to print the below listed signals repeatedly, we will save valuable space for additional data. Only differences and additions to this listing will be noted by editors. Please refer to this listing when monitoring. Any corrections or additions will be noted during coverage by the editor.

10-1	Receiving poorly	10-33	Emergency
10-2	Receiving well	10-36	Correct time
10-3	Stop transmitting	10-41	Beginning duty tour
10-4	Okay, acknowledgement	10-42	Ending duty tour
10-5	Relay	10-43	Information
10-6	Busy	10-50	Accident (F, PI, PD)
10-7	Out of service	10-51	Wrecker needed
10-8	In service	10-52	Ambulance needed
10-9	Repeat	10-55	Intoxicated driver
10-13	Weather / Road conditions	10-56	Intoxicated pedestrian
10-18	Quickly	10-57	Hit & run accident (F, PI, PD)
10-19	Return to ----------	10-70	Fire alarm
10-20	Location	10-71	Advise nature of fire
10-21	Call ------- by telephone	10-72	Report progress of fire
10-22	Disregard	10-73	Smoke report
10-23	Arrived at scene	10-74	Negative
10-24	Assignment completed	10-76	Enroute
10-25	Report in person to ---------	10-77	Estimated time of arrival
10-27	Drivers license information	10-82	Reserve lodging
10-28	Vehicle registration information	10-88	Telephone number of ------
10-29	Check for wanted	10-99	Wanted / Stolen is indicated
10-30	Unnecessary use of radio	10-0 / 10-100	Use caution



PUBLIC SAFETY — SOUTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Florida, Georgia, N. Carolina, S. Carolina, W. Virginia, and Virginia:

William Mauldin, 2268 N.W. 30th Rd., Boca Raton, FL 33431

MONITORING GREATER ATLANTA, GEORGIA

Dekalb County Frequencies:

460.450 MHz	F1	Dekalb County Police, North Dispatch
460.100 MHz	F5	Dekalb County Police, South Dispatch
460.400 MHz	F3	Dekalb County Police, Central Dispatch
460.125 MHz	F7	Dekalb County Police, Detectives
460.225 MHz	F9	Dekalb County Police, Tactical
460.525 MHz	F1	Dekalb County Fire, Main Dispatch
460.575 MHz	F2	Dekalb County Fire, Secondary & EMS Dispatch
154.845 MHz		Dekalb County Sheriff, Dispatch

Atlanta City Frequencies:

460.300 MHz	Zone 1	Atlanta Police, Northwest Dispatch
460.025 MHz	Zone 2	Atlanta Police, Northeast Dispatch
460.075 MHz	Zone 3	Atlanta Police, Southeast Dispatch
460.350 MHz	Zone 4	Atlanta Police, Southwest Dispatch
460.150 MHz	Zone 5	Atlanta Police, Downtown Dispatch
460.475 MHz	Zone 6	Atlanta Police, East Central Dispatch
460.200 MHz		Atlanta Police, Citywide Information Checks
460.425 MHz		Atlanta Police, Administrative
155.700 MHz		Atlanta Police, Detectives
852.9625 MHz		Atlanta Airport Maintenance
853.4625 MHz		Atlanta Airport Emergency
463.025 MHz		Atlanta Airport EMS
154.190 MHz		Atlanta Fire, Airport Dispatch
852.4625 MHz		Atlanta Airport Police
155.625 MHz		Atlanta Airport, old Police Dispatch
154.190 MHz		Atlanta, City Fire Dispatch
154.445 MHz		Atlanta, City Fire Tactical (no repeater)

Fulton County Frequencies:

158.775 MHz	Fulton County Police, Main Dispatch
154.325 MHz	Fulton County Fire, Main Dispatch

Gwinnet County Frequencies:

154.145 MHz	Gwinnett County Fire, Main Dispatch
154.130 MHz	Gwinnett County Fire, Fireground
460.175 MHz	Gwinnett County Police, Intercounty Mutual Aid
460.275 MHz	Gwinnett County Police, Dispatch

Cobb County Frequencies:

159.090 MHz		Marietta Police, Dispatch
155.790 MHz		Marietta Police, Dispatch
460.030 MHz	F1	Cobb County Police, Main Dispatch
460.375 MHz	F3	Cobb County Police, Dispatch
460.500 MHz	F5	Cobb County Police, Information & Checks
155.040 MHz		Cobb County Sheriff, Dispatch Civil
46.420 MHz		Cobb County Fire, Main Dispatch

Atlanta Police / Fulton County Dispatch Signals

Signal Number:

1	Stolen auto	10	Call Police Chief	19	Assist in jail
2	ADT alarm	11	Garage	20	Call lights & water
3	Alarm ringing	12	Call clinic	21	Call wrecker
4	Ambulance	13	Call filter plant	22	Call clinic (name)
5	Street lights	14	Call light plant	23	Disorderly
6	Burglar in house	15	Call radio	24	Demented person
7	Burglar in store	16	Cancel present call	25	Shooting
8	Community relations	17	Call radio room	26	Discharging fireworks
9	Call Fire Chief	18	Call radio shop	27	Dog barking

28	Drunk	47	Person injured	66	Peeping tom
29	Drunk & disorderly, fight	48	Person dead	67	Person down
30	Drunk & disorderly, in auto	49	Rape	68	Person screaming
31	Electrical wires	50	Person shot	69	Person armed
32	Prisoner escaped	51	Person stabbed	70	Prowler
33	Fire	52	Stolen goods	71	Public indecency
34	Gaming	53	Suicide	72	Reckless driving
35	Go to headquarters	54	Suspicious person	73	Bomb threat
36	Holdup in progress	55	Trouble unknown	74	Whiskey or beer
37	Illegal parking	56	Lost child	75	Air rifles
38	Illegal whiskey	57	Loud radio	76	Sick call
39	Information for officers	58	Woman beating	77	Snatch thief
40	Investigate or kill animals	59	Meet an officer	78	Standby for lookout
41	Auto accident	60	Molesting woman or child	79	Stealing from auto
42	Burglary	61	Money transfer	80	Stray animals
43	Hit and run	62	Switch zone	81	Street hazard
44	Robbery	63	Officer needs help	82	Wagon call
45	Larceny	64	Panhandling	83	Person located
46	Person hit by auto	65	PBA or PHA	84	Work traffic
				85	Wrecker on the way

Atlanta Police Status Codes

Code Meanings

1	Advise warrant	10	Impound
	A. Civil	11	Information
	B. On person	12	Investigation
2	Alarm re-set	13	No such number
3	Alarm out	14	Owner refused
4	Cancel	15	Private property
5	Domestic	16	Released to owner
6	False	17	Report
7	Food on stove	18	72 hour check
8	Gone	19	Work traffic
9	Handled by:	20	Small damage, no report
	A. Crime Prevention	21	Unable to locate
	B. Detectives	22	
	C. Dog Unit	23	Traffic ticket
	D. Fire Dept.	24	Unfounded
	E. Ambulance	25	Settled
	F. SPCA		
	G. Military Police		
	H. Owner		
	J. Alarm Company		
	K. Supv Officer		
	L. Food man		

MONITORING ST PETERSBURG, FLORIDA

FREQUENICES OF OPERATION:

St. Petersburg Police:

155.860 MHz	F1	South St. Petersburg Police Dispatch
155.910 MHz	F2	North St. Petersburg Police Dispatch
155.700 MHz	F3	Detectives, St. Petersburg Police
154.845 MHz	F4	Police Coverage of Special Events
154.890 MHz		TAC 1, St. Petersburg Police
155.370 MHz		TAC 2, St. Petersburg PD (also Fla Police Intercity)
460.050 MHz		TAC 3, St. Petersburg Police

St. Petersburg Beach Police:

460.325 MHz		St. Petersburg Beach Police Dispatch

St. Petersburg Fire:

154.070 MHz	F1	Main Dispatch for St. Petersburg Fire
154.205 MHz	F2	Fireground, St. Petersburg Fire
154.340 MHz	F3	County / City Mutual Aid Communications

Emergency Medical for St. Petersburg:

155.160 MHz	SAS Ambulance Dispatch, south of Largo
463.675 MHz	Pinellas Ambulance dispatching for St. Petersburg

462.975 MHz		Pinellas Ambulance dispatching north of Largo
463.650 MHz		St. Anthonys Hospital
463.600 MHz		University General Hospital
463.050 MHz		St. Petersburg Paramedic Dispatcher
155.280 MHz		Area Hospital Emergency Net System

General Frequencies, St. Petersburg Area:

150.935 MHz		AAA Motor Club, "Q" Units, St. Petersburg area
150.965 MHz		AAA Motor Club, "M" Units, St. Petersburg area
154.415 MHz		Lealman Vol. Fire Department
44.600 MHz		St. Petersburg City Transit
156.575 MHz		St. Petersburg Yacht Club
45.000 MHz		Florida Marine Patrol, Tampa dispatcher
452.975 MHz		St. Petersburg Times
158.460 MHz		St. Petersburg Junior College, Clearwater Campus
154.540 MHz		Eckerd College
153.875 MHz		Treasure Island Fire
158.790 MHz		Treasure Island Police
154.190 MHz		Madiera Beach Fire
158.880 MHz		Madiera Beach Police
451.075 MHz		Florida Power & Light, St. Petersburg area
464.325 MHz		Clearwater Mall Security
154.570 MHz		Countryside Mall Security, Clearwater
464.775 MHz		Pinellas Square Mall Security
464.675 MHz		Tyrone Square Mall Security, St. Petersburg
461.800 MHz		Wells Fargo Protective Service
462.000 MHz		Wackenhut Security Services
155.400 MHz		Morton Plant Security
464.825 MHz		Mease Hospital
157.740 MHz		St. Petersburg area doctors paging service
146.970 MHz		Pinellas County Amateur Radio Emergency Net, Tues 7:30PM

Pinellas County Sheriff:

154.775 MHz	F1	South County Dispatch, Sheriff CDC
155.640 MHz	F2	Dunedin Dispatch, Sheriff CDC
154.710 MHz	F3	North County Dispatch, Sheriff CDC
154.950 MHz	F4	Car to Car, CDC all Departments
154.815 MHz		Pinellas County Sheriff Detectives

Pinellas County Fire & Emergency Medical:

154.340 MHz		Pinellas County Fire Mutual Aid
154.400 MHz		Clearwater Beach Lifeguards
463.075 MHz		Morton Plant Hospital
463.100 MHz		Clearwater Community Hospital
463.125 MHz		Largo Paramedic Hospital Dispatch

Clearwater Police & Fire:

460.275 MHz	F1	Clearwater Police Main Dispatch
460.425 MHz	F2	Clearwater Police, Information
460.475 MHz	F3	Clearwater Police, East Dispatch during max use
460.100 MHz	F4	Clearwater Police, Detectives
460.600 MHz		Clearwater Fire Dispatch
453.425 MHz		Clearwater City Govt Dispatch
463.100 MHz		Clearwater Community Hospital

Largo Police & Fire:

460.200 MHz	F1	Largo Police Main Dispatch
460.300 MHz	F2	Largo Police Information
154.355 MHz		Largo Fire Dispatch
463.125 MHz		Largo Paramedic Dispatcher
153.740 MHz		Largo Mosquito Control
155.820 MHz		County School Security Officers Dispatch
155.205 MHz		School Bus Communications

Dunedin Police & Fire:

460.025 MHz	F1	Dunedin Police Dispatch
453.100 MHz	F1	Dunedin Fire Dispatch
155.940 MHz	F1	Dunedin City Govt Dispatch

Florida Highway Patrol, St. Petersburg area:

154.665 MHz	F1	Pinellas Park Dispatcher
154.680 MHz	F2	Tampa Dispatcher
154.695 MHz	F3	Bradenton Dispatcher
154.920 MHz	F4	Simplex, Aircraft, Base to Base, Car to Car

PINELLAS COUNTY HOSPITAL NETWORK - 155.340 MHz

There is an extensive medical emergency network on this frequency, and during disaster control drills or actual emergencies, this would be one of the more active frequencies. The following is a listing of the stations authorized to operate on this net in Pinellas County.

Morton Plant	Clearwater
Hunter Blood Center	Clearwater
Clearwater Community Hospital	Clearwater
Mease	Dunedin
Largo Medical Center	Largo
Suncoast	Largo
City of Largo	Largo
Metro General Hospital	Pinellas Park
Lake Seminole Hospital	Seminole
University General Hospital	Seminole
Bayfront Hospital	St. Petersburg
Palms of Pasadena	St. Petersburg
St. Petersburg General Hospital	St. Petersburg
St. Petersburg Osteopathic Hospital	St. Petersburg

St. Petersburg Police Dispatch Signals and Codes

(Refer to RCMA Standard Ten Signal Listing for signals omitted from this listing.)

10-10 Out of service, subject to call
10-11 Dispatching too rapidly
10-12 Visitors present
10-14 Convoy or escort
10-15 Prisoner in custody
10-16 Pickup prisoner at (location)
10-17 Conduct investigation
10-26 Message received
10-31 In pursuit
10-34 Jail break, trouble at station
10-35 Confidential information
10-37 (Name of) operator on duty
10-38 Block roads at (location)
10-39 Message delivered
10-40 Out for meal at (location)
10-41 In possession of (name item)
10-43 Any traffic for (Name)
10-44 Pickup papers at (location)
10-45 Call (name) by phone
10-46 Urgent
10-48 End/Did you receive?
10-49 Serving warrant
10-50 Stopping vehicle
10-51 Enroute
10-52 Estimated time of arrival
10-53 Coming by office
10-54 Negative
10-55 Car calling car
10-56 Meet (name) at (location)
10-57 At pistol range
10-58 Teleprinter message
10-59 Send teletype message
10-60 Assist motorist
10-61 Need Sgt on scene
10-62 Need Lt on scene
10-63 Need bomb squad
10-64 Need crime lab
10-65 Can you copy?
10-66 Cancel
10-67 Serving civil process
10-68 Legal advise requested
10-69 Narcotics agent requested
10-70 Wrecker requested
10-71 Ambulance requested
10-72 Aviation unit requested
10-73 Juvenile unit requested
10-74 Recall
10-88 Where can (name) be reached?
10-89 On page service
10-90 Scramble
10-91 Tactical frequency
10-92 Information frequency
10-93 Detective requested
10-94 Backup requested
10-95 Computer check
10-96 Radio telephone patch
10-97 Arrived at scene
10-98 Completed assignment
10-99 NCIC/FCIC/BCIC Hit
10-100 Alert, remain in contact
10-101 Log on digital system
10-102 Log off digital system
10-103 Ack digital message
10-104 Computer system down
10-105 Prisoner transportation required
10-106 Medical assistance required
10-107 C.R.U. Requested

Dispatch Codes:

Code 1	Routine Response
Code 2	Expedite Response
Code 3	Emergency Response

St. Petersburg Police Dispatch Signals

Signal:	
0	Armed, used caution
1	Drunk driver
2	Druck pedestrian
3	Hit and run
4	Accident
5	Murder
6	Escaped prisoner
7	Dead person
8	Missing person
9	Stolen tag
10	Stolen car
11	Abandoned vehicle
12	Reckless driver
13	Suspicious vehicle
13P	Suspicious person
14	Information
15	Special detail
16	Child abuse
17	Contact
18	Felony
19	Misdemeanor
20	Mentally ill person
21	Breaking and entering
22	Disturbance
23	Pedestrian or hitchhiker
24	Kidnapping or false imprisonment
25	Fire
26	Drowning
27	Prowler or peeping tom
28	Civil disorder
29	Reckless boat operation
30	Larceny (give type)
31	Assault (give type)
32	Suicide
33	Shooting
34	Stabbing
35	Rape
36	Disturbance
37	Disturbance, juvenile
38	Disturbance, domestic
39	Disturbance, neighbor
40	Vandalism
41	Robbery (give type)
42	Child molesting
43	Lewd, lascivious acts
44	Boat or marine accident
45	Airplane crash
46	Bomb threat
47	Vice case (non drug type)
48	Open door
49	Alarm sounding (give type)
50	Labor trouble
51	Trespassing
52	Forgery, counterfeiting
53	Embezzlement, fraud
54	Hijack, aircraft
55	Explosion
56	Beverage violation
57	Narcotics
58	Unlawful assembly
59	Fire bombing
60	Sniper fire
61	Gambling
62	Racial trouble
63	Impersonating an officer
64	Larceny of auto parts
65	Shoplifting
66	Civil matter
67	Sick or injured person
68	Police service call
69	Loose farm animal on highway
70	Animal bite (give type)
71	Snake call
72	Lost or found property

READER UPDATES AND CORRECTIONS

From Joe, MD-015:

Florida Weather Frequencies:

Frequency ID Key: (1)-162.550 MHz (2)-162.400 MHz (3)-162.475 MHz
Clewiston (2); Daytona Beach (2); Fort Myers (3); Gainesville (3); Jacksonville (1); Key West (2); Melbourne (1); Miami (1); Orlando (3); Panama City (1); Pensacola (2); Tallahssee (2); Tampa (1); West Palm Beach (3).

Joe sends in a listing of what he monitored during the Super Bowl, and although the data is out of date, I am listing some of the frequencies as possible reference for future events. Just good channels to check on if you are at big media events! Tampa Statium Office used 453.50 MHz which is normally used by Tampa Building Dept.; Tampa Police used 453.850 MHz for Tampa Statium traffic with ID's like "Statium 3" (this is normally the Tampa Police emergency frequency.) 453.600 MHz was used around the statium for traffic control. WTSP TV 10 was heard on 450.1120 MHz (F1) and 450.3120 MHz (F2). WTOG TV 44 was heard on 450.0870 MHz (main dispatch) and on 450.5120 MHz (PM Magazine).

Joe also notes corrections for the Jan 84 issue as follows: Charlotte County Sheriff is 154.830 MHz; 146.775 MHz is used for the "Lemon Bay Amateur Net" in Charlotte County. With regards to WTVT TV 13, 153.290 MHz is handhelds to vans; 450.150 MHz for cues; 450.350 MHz for dispatch. WTVT does not use 152.870 MHz as was listed in Jan 84.

Regarding Florida State Attorney frequencies of Jan 84, Joe add that Pinellas County area dispatches on 453.150 MHz. Terminal Port of Tampa is on 153.305 MHz.

From Alan, MD-069:

Washington Radio (Metro Media) 97.1 MHz FM has changed frequencies, and Alan requests that any of you media buffs knowing the new communications frequency please drop him a note with this information. Write Alan G. Henney, MD-015, 6912 Prince Georges Avenue, Takoma Park, MD 20912. Alan is a great collector of media data and a prime candidate for a "Media Editor" should we start a column on this data! WTOP (CBS) Washington is still on 450.350 MHz. WMAL (ABC) 630 AM is still on 161.700 MHz, but the old "Capt Dan" has been replaced by "Andy Parks".

450.250 MHz is "Washington Skywatch Traffic with Officer Steve".
161.730 MHz is Washington plane to Baltimore MTC and WTTG-TV.
455.2125 MHz is used for WMAL station reporters
462.675 MHz is used by REACT to give info to WMAL radio.
450.350 MHz is used by "WTOP TRAFFIC" and sometimes used by CBS.
122.750 MHz is the main plane to plane channel for reporters!

Alan recently visited Miami and confirmed 170.150 MHz for "WGBS 710 Sky Scan Patrol" and 455.550 MHz for "Ray Gordon WINZ Airborne Traffic". He asks that you traffic reporting buffs in Miami knowing anything about Y-100, K102 or WSHE traffic reporters please drop him a note with the information! He will keep us informed for future updates here!

From Albert, FL-011:

Pasco County FL Sheriff is operating on 45.660 MHz and 45.620 MHz. The county is divided into east and west zones. Albert states that during dispatching, he hears calls with the letters S.T.R. followed by number groups. An example would be S.T.R. 29, 26, 16. Any information on what this could be would be appreciated.

Hernando County FL Sheriff is operating on 45.980 MHz and 45.580 MHz. Highway Maint uses 151.680 MHz in the county; 155.085 MHz is Hernando County School Board; Animal Control operates on 45.540 MHz. Brooksville Local Govt is 45.200 MHz; 33.940 MHz is used by Newport Richey & Spring Hill Fire; New Port Richey Special Emergency and Lykes Memorial Hospital use 45.920 MHz; High Point and Potterfield Fire use 154.235 MHz; Florida Division of Forestry uses 159.330 MHz as base in the county.

From Ken, WPB FL:

NEW 800 MHz frequencies for South Florida! West Palm Beach Police are now operating on 856.4375 MHz, 857.4375 MHz, and 858.4375 MHz. Jupiter Police are 855.7125 MHz. Greenacres Police are on 856.2625 MHz!

FROM THE CAPTAIN'S DESK

As most of you know, with the print deadlines, this article is being written during the last days of February. The results of the member survey are just now starting to come in. I will attempt to have something in print next month regarding what most of you are using for monitors, what you are listening to generally and what you want to see in this column in the coming months. I would like to thank all of those who have answered the ten questions printed in the March and April editions, and urge those who have not answered to please do so. The next member survey won't be until next year, and this survey will govern what you will see in print in the coming months. This is your club, and your input is needed and appreciated by your editors.

The American Radio Relay League (ARRL) has just published their new Repeater Directory for 1984. You can probably find copies at your local amateur or electronics store. This is an excellent reference publication and I would strongly suggest that you obtain a copy for your listening corner! All of the active amateur repeaters are listed in this book, along with lots of basic information. If you are interested in a copy and can not find one locally, then write the ARRL, Newington, CT 06111 for information on this and other radio publications. Be sure to send them a stamped, self-addressed envelope for their reply.

As summer travel months get here, I would like to remind you that there is some interesting listening while mobile. We find especially in Florida that the airplane speed checks are very interesting monitoring. The Florida Highway Patrol is very active, for one, using aircraft all over the state on 154.920 MHz and on the Florida Turnpike on 453.575 MHz with airplane speed checks. Since the planes have good transceivers and altitude, they can be heard for quite a few miles. Interesting listening! (Remember, mobile scanners are illegal in Florida unless you have a valid amateur radio operators license!) Should any of you know of other airplane speed checking frequencies, send them to the coverage area editor.

Next month, we will start updating the Highway Patrol and State Police of the Public Safety Southeast. Paul Dunn who probably knows more about the North Carolina State Highway Patrol than 90% of the state's engineers will bring us another excellent coverage article on the first State Patrol in our series. North Carolina has one of the best and most modern radio systems in the southeast, and I am sure those of you who can or will be monitoring in the Tar Heel state will enjoy this excellent article on the radio system of the North Carolina State Highway Patrol.

RADIO SHOWS AND EVENTS FOR MAY AND JUNE:

The REPEATER JOURNAL lists these radio shows and events for the month of May and June...
May 5 & 6: The Blue Ridge Amateur Radio Society again hold their annual event at the American Legion Fairground on the Highway 25 by-pass, 1 mile north of I 85, Greenville, SC. The admission for this hamfest and flea market is $4.00. If you are not a ham, you can listen for directions and information on 146.610 MHz, the local ham repeater.

May 12: The Durham FM Association will hold the DURHAM HAMFEST on this date at the South Square Mall. There will be dealer displays and discounts, flea market and prizes. The frequencies to monitor for information are 147.225 MHz and 146.820 MHz.
May 26 & 27: Hamfest and flea market to be held in Knoxville, TN.
May 27: Hamfest and flea market to be held in Roanoke, VA.
June 3: Ole Virginia Hamfest to be held in Manassas, VA.
June 16 & 17: Hamvention of Atlanta! This was a big one last year!

I also have general information on these possible events: Birmingham AL hamfest on May 12 & 13; Lake Hartwell GA Hamfest on May 19 & 20; Dalton GA hamfest on May 19th; Gastonia NC hamfest on May 20th: Tri-State Hamfest on June 3rd in Huntington, WV!

Monitor local amateur repeaters or ask local amateur radio operators for details on these flea markets and events! We again thank the REPEATER JOURNAL and the Southeastern Repeater Assocation for their assistance in obtaining this listing!

This column is a result of the efforts of active RCMA club members! Your editors are volunteers who need your input to make the club and our publication grow. The editors can not and do not invent the material you see in print. We need your continued input and support to make our club work. My sincere thanks to those who helped this month! Please send in your contribution, no matter how large or small today! Thanks to all! 73s Bill.

PUBLIC SAFETY — SOUTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas:

Ken Pehl, 108 E. Centre St., Fredericksburg, Texas 78624.

Greetings and welcome to a jam packed column. I guess everyone has recovered from "The Big Chill" and started writing to this editor's mailbox. So without further ado, let's start.

The big news this month is the formal announcement of the 2nd Annual Texas RCMA Convention. For all the particulars let's turn the floor over to Gary Fitts, TX-94, host of this year's event...

Date : Saturday July 14,1984

Time : 1:00PM To 5:00PM

Location : First State Bank (Meeting Room)...Park and enter at the rear entrance.

How to get there : Entering Rusk on.....

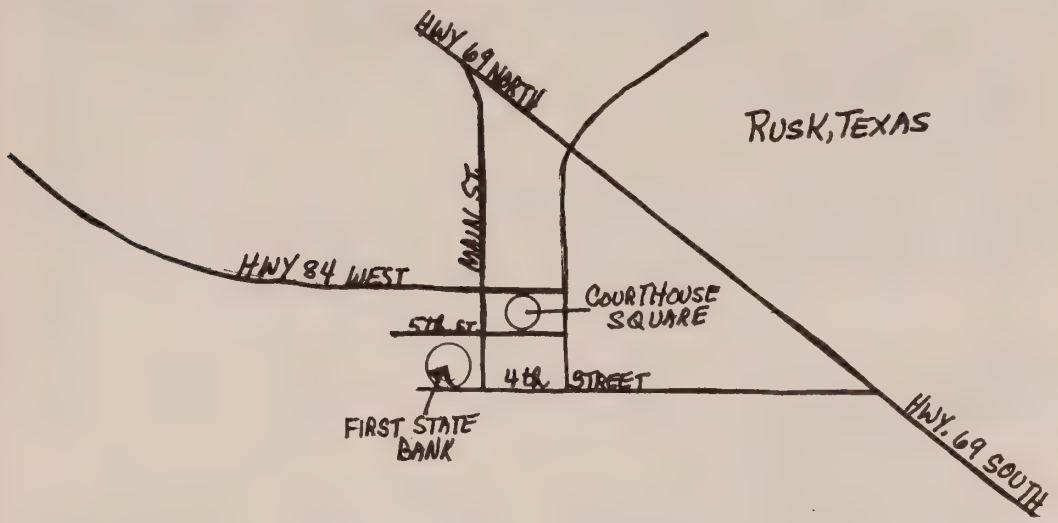
Highway 69 North - turn right on to Main Street
Highway 69 South - turn left on to 4th Street
Highway 84 West - turn right on to Main Street at the Square

The bank is at the intersection of 4th Street and Main Street. One block southwest of the Court House Square.

Talk in communications : CB operators ...Try channel 8 and call for RCMA94
Ham operators ... Try 146.520 (RCMA hams are rare)

The main Active Rusk and Cherokee Frequencies are:

Cherokee County Sheriff's Office	Channel 1=155.130 Dispatch Channel 2=154.785
County volunteer Fire Departments	154.310 simplex
Rusk Police & Fire Departments	154.995
Jacksonville Police Department	154.785
Jacksonville Fire Department	154.175 & 37.260
Rusk & Jacksonville EMS	155.340



Thank you, Gary, for all the hard effort and planning that went into this. I know you worked hard and, on behalf of all the members, our heartiest congratulations and thanks for making another convention possible. This editor just knows this convention will be a success. And for our readers, there already is talk of another convention in 1985, possibly with a Southeast Texas site.

And now on to this month's input from around the area.

From REED, AL-22: Reed wrote to tell us the Alabama State Police troopers have changed dispatching frequencies in anticipation of the 1 January 1985 deadline to clear 155.475 for the national law enforcement emergency channel (NLEEC). Reed advises the new ASP base to mobiles frequency is now 158.790 and the mobile to base frequency is now 159.030. This is the same split channel simplex mode like they used before under the old pair 155.445/155.475. At the present time, very little activity occurs on the old pair. Callsigns remain unchanged.

Thank you, Reed, for that important update. We like hearing from you.

From ALLEN, AR-??: Allen wrote in to give us a listing of Little Rock and nearby communities' radio systems.

LITTLE ROCK, ARK. & SUBURBAN AREA RADIO SYSTEMS

Arkansas State Police
44.62 B/M Main dispatch ch./Little Rock
44.66 B/M Alt. ch.
44.76 B/M Alt. ch.

Little Rock Police Dept.
ch 7 453.150 Red ch.
ch 8 453.200 Black ch.
ch ? 453.300 ? use ?
ch ? 453.400 ? use ?

Little Rock Fire Dept.
453.875 Central communications
453.700
453.900

Little Rock Local Govt. Ch's
453.475 Dog catchers
453.375 Street Dept.

Pulaski County Sheriff Dept (Little Rock)
ch 1 155.010 Main dispatch ch.
ch 1 159.210 Ch. One (10-86)
ch 3 155.850
ch 4 154.650
37.240 Inter-agency ch./statewide

North Little Rock, Ark.
453.050 No. Little Rock PD
(see code list at end of article)

Saline County Sheriff Dept.
ch 1 37.360 Main dispatch for Sheriff Dept. & for smaller city PD's in county
ch 2 37.200 ? use
ch 3 37.140 ? use
ch ? 37.240 Inter-agency ch.

Public Safety - South Central continued

Shannon Hills, Ark. PD
ch 1 37.360 Main dispatch (shared with Saline Co. S.D.)
ch 2 37.240 Inter-agency ch.
ch 3 37.220 (shared with Mayflower, Ark.)

Shannon Hills, Ark. Fire Dept.
154.160

Benton, Ark.
Police -- ch 1 155.580 Main dispatch ch.
ch 2 37.240 Inter-agency ch.
ch 3 37.200 ? use
ch ? 37.360 for co-ordination with Saline Co. Sheriff Dept.

Fire -- 154.145
154.205
154.190
155.145

Bryant, Ark.
Police -- 37.360 Main dispatch (shared with Saline Co. S.D.)
37.240 Inter-agency ch.
37.200 for co-ordination with Benton, Ark. PD
155.580 for co-ordinating with Benton, Ark. PD
155.565 used very seldom

Alexander, Ark. PD
ch ? 37.360 Main dispatch (shared with Saline Co. S.D.)
ch 1 37.260 ? use
ch ? 37.240 Inter-agency ch.
ch 3 37.140 ? use

NORTH LITTLE ROCK PD "9-CODES"

901	Accident
901-A	Hit and Run
901-F	Fatality
902-X	Fire
902-A	Arson
903	Prowler
904	Unknown
905	Deceased person
906	Homicide
907	Suicide
907-A	Attempted suicide
908	Burglary
908-A	Burglary alarm
909	Robbery
909-A	Robbery alarm
910-A	Drunk driver
911	Reckless driver
912	Stolen vehicle
912-A	A bonded vehicle
913	Theft/larcency
914	Fight/disturbance
915	Sick/injured person
916	See a person
917	Suspicious person
918	Rape
919	Sex incident/exposer
921	A-T-L
922	Assist a citizen
923	Traffic problem
924	Wanted person
925	General Report
926	Assault
927	Hot check/forgery
928	Vandalism
930	Assist an officer
931	Officer needs help

Code 1 -- Go to location. Routine
Code 2 -- Proceed as fast as possible-- Do NOT use lights or siren.
Code 3 -- Emergency -- use lights & siren.

Allen again asks for anyone with info on Little Rock PD channel "RED 9" to please write in with the info. There was no response to the inquiry in the February 1984 column.

I would like to thank Allen for taking the time to write and help with some input from the State of Arkansas. Info on Arkansas has been a bit dry lately. Thanks, Allen!

From RAYMOND, IL-???: Ray is spending some time here in the Lone Star state with his daughter. Ray would like to have some info on frequencies to listen to in the Pittsburg/Camp County, Texas area. This editor sent some info to him which dealt with counties in the near East Texas area. Can anyone help out with further Northeast Texas area info? Ray would appreciate it.

From DAVID, LA-31: David wrote to add a few corrections and clarify some points in his March 1984 column report on the Acadian Ambulance Service radio systems. The police frequency 154.360 mentioned in the report, as used by the

Acadian Amb. Svc. is in error. 154.860 is the Bogalusa PD Ch 3 and used for only police communications. (editor's note: If I understand what David is saying correctly, the Acadian Amb. Svc. does not use this frequency at all. His earlier report lead me to believe the ambulance service used it for communicating with the PD.) Furthermore, the Acadian Amb. Svc. serves the parishes surrounding Washington Parish but not within Washington Parish itself. The Washington Parish Ambulance Service serves the Washington Parish area. David did not advise the frequencies used by the Washington Parish Amb. Svc. David would also like to inform the members he has established a REACT team in the Bogalusa, La. area. He had great difficulty gathering the minimum number of people for a certified team. (editor's note: My apologies for fouling up your report, David. However, thanks for straightening things out.)

From MARVIN (TX-2), PHIL (TX-97), ED (TX-45), KEN (TX-3): Effective on or close to Jan. 18th, Pierce DPS office started using 155.445 as an alternative channel. At the present time, it appears to be used for giving license and computer info returns. Pierce still uses 155.460 (ch 1) as well.

From PHIL (TX-97): A correction to the Feb. 84 column. Walker County DPS units use Bryan, Lufkin, or Houston DPS radio offices depending on what part of the county they are in and the radio conditions at the time of contact. In other words, they are not totally under Lufkin (DPS) radio. Phil also notes the Hunstville DPS office is complete & in use--lacking only the radio equipment for a full service office. Phil has also heard Lampasas DPS office on 155.445.

From MIKE, TX-81: On the same subject of 155.445, Mike advises rumors are that Sulphur Springs DPS office will be converting to 155.445 as well in the near future.

From MARVIN, TX-2: Marvin advises he has found some new licenses in the FCC microfiche files which he will be checking on and reporting on in the future. The frequencies are:
(in) Hardin County: 155.220 B/M WZY 200 J.D.'s Emergency Medical Service
(in) Liberty County: 155.325 B/M KMK 703 Hull-Daisetta Vol. Amb. Svc.
(Note: The above agency handled the major school bus accident last November.)
(in) Jasper County: 155.265 B/M KNDM 558 East Texas Amb. Svc.
(in) Jefferson County: 155.205 B/M call unknown -- Port Arthur Ind. School District (school buses and administration)
(in) Orange County: 154.340 B/M KNHJ 866 Little Cypress VFD

From MIKE, TX-81: FANNIN COUNTY RADIO SYSTEMS
LAW ENFORCEMENT CH's
Sheriff Dept
ch 1 154.725 R (155.910 input) KUE 477 Sheriff Dept. and Bonham PD dispatch
ch 2 none -- Police Dept (see below) units have 154.725 simplex capability
ch 3 & ch 4 = standard inter-city channels
37.180 S KKO 982 ambulance dispatching (some S.O. units also equipped)
37.260 S KKO 982 alt. ch. -- seldom used
Note: The Fannin County S.O. and the Bonham PD use separate dispatchers and use separate dispatching consoles (2 control stations); however, the dispatchers both work through the S.O.'s (one) repeater. All other municipal PD's in the county are dispatched thru the S.O. dispatcher. In addition, some mobile units are equipped with adjacent counties' S.O.'s channels.

Police Dept. -- Bonham PD --
ch 1 154.725 R (155.910 input) KUE 477 Main PD dispatch/ch. shared with S.O.
ch 2 154.725 simplex talk-around
ch 3 & ch 4 = standard inter-city channels
ch 5-- ch 12 = see Dec 83 issue for entire list. With reference to the PD's 12 ch radios, these radios scan the first eight channels but have twelve channel capability (synthesized Motorola's). The radios are set to only receive the adjacent agencies frequencies but will transmit on 154.950 on those positions.
37.180 S KKA 816 -- to co-ordinate with the ambulance service
--other police dept's in the county -- dispatched by the county S.O.

UNIT NUMBERS (all below are equipped with Fannin S.O. ch 1 primary)

---County Units---	22-23 = Constables
1 = Sheriff	26 = Savoy PD unit
2 = Chief Deputy	27 = Trenton PD unit
3--8 = Deputies	28 = Ladonia PD unit
900's = Reserve Deputies	300--303 = Honey Grove PD units
20 = J.P./Pct. 1	310 = Honey Grove Amb. unit ; 320's = Honey Grove FD units

600--611 = Leonard PD units
610 = Leonard Amb. unit
500 = County Attorney
501 = Asst. County Attorney
503 = County Juvenile Officer
70 = North Fannin Co. Vol. FD Chief
CD-1 = Civil Defense Co-ordinator
CD-2 = Asst. CD Co-ordinator

---Bonham PD---
200 = PD Chief
201--203 = Lt's
204--207 = Sgt's
208--213 = Patrol units
214--218 = Dispatchers
217 = Animal Control unit

---State units---
DPS--
1304 = THP Sgt. (stationed Lamar Co.)
1340--1343 = THP units
1949 = D.L. unit
621 = Texas Ranger (stationed Sherman)

P&WD--
8004 = Regional Director (stationed Mt. Pleasant)
8104 = District Supervisor (Dallas)
8107 = Game Warden

TABC--
701 = District Supv. (stationed Paris)
702 = Asst. Dist. Supv. (stationed Paris)
711 = TABC unit

EMS CH's---
Fannin Co. EMS / callsign unknown
37.180 S Amb. dispatch
462.950 -- R -- Office/unit communications
463.xxx -- R -- standard UHF MED ch's (MED 8 is primary ch)// hosp/amb. contacts
155.340 S hosp/amb. contacts (seldom used)
152.0075 P -- Fannin Co. Hosp. pager (medical)

FIRE CH's---
46.460 S & P -- Bonham Fire Dept.--dispatch and fireground (also used to page KDQ 266 the county J.P. & fire personnel)

units---
100 = Fire Chief
101 = Asst. Fire Chief
102--104 = Capt's
105--108 = Pumpers
107 = Grass Truck
109 = Rescue unit

Thank you, Mike, for that extensive report. As always, your input is greatly appreciated and further reports are eagerly anticipated.

From RICHARD, TX-43: Rich wrote to inform us that callsign KRU 991 (see Jan 84 column) apparently is the Texas State Health Dept.'s callsign. (This callsign is used on many frequencies--155.040, 154.040, and 153.845, some of these apparently authorized for statewide mobile use.) 155.145/KEC 789 & KED 301 appear to be the State Hospitals in Austin. 155.145/KA 84940 is licensed to the Texas State Dept. of Human Resources. 158.775/KTT 387 apparently is the Austin State School (MHMR). Thanks, Rich, for that excellent "detective" work on these callsigns and the agencies using them. Can anyone confirm hearing any of these "odd ball" --out of the ordinary--state agencies?

Rich also advises the meeting dates for the Austin Radio (listeners) Club for the 1984 calendar year:

March 20	August 21
April 16	September 18
May 15	October 16
June 19	November 20
July 17	December 18

Thank you, Rich, for letting us know. Keep us posted on any further details.

From BRAD, OH-138: Brad provides an update to his Jan 84 column report on the Ft Worth PD radio system.

FT WORTH PD RADIO SYSTEM (update)
ch 1 460.050 -- E & F Units -- Downtown Patrol
ch 2 460.100 -- C & D Units -- West side Patrol
ch 3 460.150 -- Computer/info ch. -- all units
ch 4 460.200 -- Car-to-car ch. -- all units

Public Safety - South Central continued

ch 5 460.250 -- G & H Units -- North side Patrol
ch 6 460.300 -- A & B Units -- East side Patrol (incl. Poly)
158.730 -- personnel paging
Note 1 : There is no South Patrol channel as per POLICE CALL. Ch 2 covers the Southwest and ch 6 covers the Southeast.

Note 2 : The frequency 158.790 previously credited in the Jan 84 column to FWPD is not correct. It is used by the Duncanville PD (nearby agency).

FWPD UNITS:

A-alfa thru H-Henry plus three digit number = Sector patrol units (first number digit indicates shift; 1 = 1st shift;2 = 2nd shift;3 = 3rd shift)

A-10 -- H-10 = Sector Sgt's
J-units = Traffic units
K-units = Lt's
T-units = Beat patrol units
R-units = Reserve units
R-c units = Relief units
L26--L35 = Crime Scene units (Ch 5)
L45 = Homicide units
L373--L375 = Gang detail units
V120--V124 = School patrol units
Tach units = Detectives

---Benbrook PD -- 453.450 KSL 373 ; Benbrook Local govt -- 451.525 Water & Sewer Dept.
---Euless PD = 855.2375
---Everman FD & LG are licensed for 800 MHz; Brad has heard the Everman FD on 817.4375 and 817.6875 KKM 783 (editor's note: Shouldn't these be 45 MHz higher, Brad, since the base repeaters are on the higher of the frequency pair?)
---Denton County Electric Company -- 47.980 (not the water dept. as reported in the April 84 column.)
---Brad found a GMRS license for the city of Richardson in the FCC microfiche files. Does anyone know why a municipality has a GMRS license? (editor's note: One thought--it might be for co-ordination with a REACT team?)
---Brad would like to know what agency provides security for Lake Ray Hubbard and for Meachum Field (Ft Worth). Does anyone have any ideas?
---Tarrant County Sheriff Office's low band dispatching and computer info channels are repeaterized(!!) and, from on the air listening, Brad has determined the inputs are: 37.240 Rptr output (37.420 input) Primary dispatch ch.
37.120 Rptr output (37.020 input) NCIC/TCIC/computer info ch.
TCSO 10-codes are the standard APCO 10-code list (the original APCO code that went from 10-0 to 10-99)

Thank you, Brad, for that extensive work. I know we will be hearing from you some more in the future. As always, your input helps out tremendously in an area that had been previously underrepresented.

From PHIL, TX-97: Phil has provided a 10-code list used by the Arlington PD As usual, the 10-code list has been edited down to a smaller list as per RCMA policy. Please refer to the beginning of these public safety columns for referal to those codes not listed.

ARLINGTON PD 10-CODE

10-10 Out of service, subject to call
10-11 Dispatching too rapidly
10-12 Visitor or other person present
10-15 Prisoner in custody
10-23 Subject is wanted for misdemeanor
10-24 Subject is wanted for felony
10-25 Check regional & NCIC for wanted
10-26 Check (local) for wanted
10-30 Not in accordance with regulations
10-34 Officer in distress
10-35 Confidential information
10-37 Name of operator
10-40 Am I clear for lunch mark out?
10-41 Not clear at this time, will advise
10-44 ___ has radio traffic for you
10-50 No traffic
10-51 Do you have traffic for me?
10-97 Arrived at scene
10-98 Completed last assignment

Note: Not used on the official list are 10-3, 10-42, 10-43, and 10-52 thru 10-99)

ARLINGTON PD STATION CODES

1 - Your office
2 - His office
3 - Dispatching office
4 - Computer/teletype
5 - Records
6 - Jail office/booking
7 - Complaint desk
8 - Basement area
9 - Police Parking lot
10 - Municipal court
11 - Your residence
12 - Gas Pump
13 - Radio shop
14 - Detectives office
15 - City Manager's Office
16 - City Secretary's Office

17 - City Claim Agent's Office
18 - City Payroll office
19 - County Tax Office
20 - Lake Arlington Office
21 - Vehicle pound
22 - AMH-Emergency room
23 - Car wash
24 - City garage
25 - Sub-station #1
26 - Arlington stadium
27 - ACH-Emergency room
28 - Crime analysis
29 - Vand. park radio tower
30 - (reserved)
31 - (")
32 - (")

ARLINGTON PD COMPLAINT SIGNAL CODES

1 - Abandoned property
2 - Abandoned vehicle
3 - Accident (minor)
4 - Accident (major)
5 - Accident (Hit & Run)
6 - Animal Ord-violation
7 - Assault
8 - Assault (criminal)
9 - Assist motorist
10 - Assist officer
11 - Assist traffic
12 - Bomb threat
13 - Burglar alarm
14 - Burglary investigation
15 - Coffee check-out
16 - Cutting
17 - Dead animal
18 - Deceased person
19 - Deliver message
20 - Demented person
21 - Disregard call
22 - Disturbance
23 - Disturbance (domestic)
24 - Drag racing/speeding
25 - Drowning
26 - Drugs/narcotics
27 - Drunk driving
28 - Drunk in parked car
29 - Drunk pedestrian
30 - Escort
31 - Fight
32 - Fire
33 - Delayed accident
34 - Hospital report
35 - Indecent exposure
36 - Injured person
37 - Investigation
38 - Loose livestock
39 - Lost child
40 - Lunch
41 - Meet complainant
42 - Meet ____
43 - Missing person
44 - Motor vehicle insp.
45 - Open door/window
46 - Other ____
47 - Parking violation
48 - Person with gun
49 - Pick-up package
50 - Prisoner transfer
51 - Prowler
52 - Radar
53 - Rest room
54 - Robbery
55 - School crossing
56 - Shooting
57 - Special assignment
58 - Suspicious person
59 - Theft
60 - Vandalism
61 - Vehicle maintenance
62 - Vehicle theft/record
63 - Warrant service
64 - Write reports
65 - Fireworks
66 - Burglary in progress
67 - Vacation check
68 - (reserved)
69 - "
70 - "
71 - "
72 - "

ARLINGTON PD DISPOSITION CODES

1 - Offense report
2 - Accident report
3 - Arrest report
4 - Continuation
5 - Incident report
6 - Service call
7 - X-dispatch
8 - (reserved)

From ROBERT, TX-76: Robert notes a correction to the March 84 column report on the U.T./Austin Frank Erwin Center's security and maintenance frequencies. Robert has determined that the Erwin Center uses only <u>one</u> channel--453.650 (R) KMA 522. The frequency is used very little, so very little is known about the set-up. The callsign is seldom, if ever, given. The frequency 453.950 is actually used by the U.T. Performing Arts Center -- a different building and facility from the Erwin Center. The Performing Arts Center (P.A.C.) radio uses an automatic morse code ID'er. It is used for behind the scenes directing and cueing, apparently.

Robert has also provided us with a comprehensive report on the U.T. radio systems. Unfortunately, we are crowding our space limit already, so owing to lack of space and also to lack of time to prepare the report for publication, we will have to leave it for next month. Besides, this might entice you to come back and read this column again next month. So until next month, see ya'll.

PUBLIC SAFETY — GREAT LAKES:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

Scott Lowry, 2198 Oak Avenue, Hanover Park, IL 60103

Hello again everybody and welcome to the long overdue Public Safety - Great Lakes column. Through a problem with the US Posthole Service and some of my own I have not been around for a couple of months. In case you've forgotten, I'm your under paid editor, Scott Lowry. I apologise for the absence and also to those of you who have written with contributions and questions for my extreme delay in acknowleging. The past several months have been rather a trying time and unfortunately RCMA has had to take a back seat.

But hey, enough about that. Let's get on with the show.

First of all from ye editor, the University of Chicago now has a full-service emergency helicopter service. The new service is known as U.C.A.N. (Univ. of Chicago Aeromedical Network). The chopper is an Aerospatiale AS355F1 "Twin Star" (Tail # N24165F), which is a twin-turbine aircraft which can cruise along at 150 MPH. The helo will be used in an area within a 200 mile radius of Chicago. They will also back up the existing Life Line system in Rockford and vise versa.

The copter is based on a roof-top heliport at the U of C and has a response time of less than 3 minutes from notification to lift-off. The crew consists of a pilot, flight surgeon, and a flight nurse. The on-board emergency equipment is about the same as a land-based Advanced Life Support ambulance and then some.

The majority of communications will be on the MERCI freq. of 155.340 MHZ. It's quite possible to hear them on just about any high-band frequency though, they have a 9200 channel Wulfsburg radio on board!

The real reason I so hot on this particular item. While attending a paramedic in-service session at Humana Hospital in Hoffman Estates, I was fortunate enough to ride in this beautiful bird. It was my first experience in a helicopter, and it was a gas! It was unbelievably quiet and smooth inside, it even has air-conditioning!

Hopefully we'll be hearing alot from this new service. Onward and Upward,.....(HA,HA,HA, Get it?...ed.)

In other Illinois action, from Mike (IL-014) comes a note on the Chicago Fire Department's doing away with the Ambulance Dispatch Center. As of Dec 16,1983 all ambulance traffic north of Pershing Rd (3900 South) will be handled by the Main Fire Alarm Office. All traffic south of Pershing will be handled by the Englewood Fire Alarm Office. They have also done away with the Modat digital status units, all traffic will be voice only.

The freqs however will remain the same;

460.600	NORTH
460.625	SOUTH
154.220	ENROUTE

Thanks, Mike!

Next, Larry (IL-052) sends a correction to an earlier column. RED Center is not in Glenview, but Niles. I should know these things. He also sends the following info on RED Center;

Stations and Manned Companies dipatched by RED Center;

1.	N. Maine FPD	E, A, S
2.	Niles FD (West)	E, A, T, DC
3.	Niles FD (East)	E, A
4.	Morton Grove FD (E)	E, A, DC
5.	Morton Grove FD (W)	E, A
6.	Glenview FD	E, A, T, S
7.	Glenbrook FPD (S)	E
8.	Glenbrook FPD (N)	E, A, DC
9.	Prospect Hts. FD	E, A

E - Engine
A - Ambulance
S - Squad
T - Truck
DC - Duty Chief

All Stations On 154.445 MHZ.

He also sends along a profile on the Northbrook Fire Dept;
Staion 1 (East) Eng 58, Amb 66, Duty Chief 53
(Reserve) Eng 60, Trk 61, Amb 67
Staion 2 (West) Eng 59, Amb 68
(Reserve) Eng 57, Squad 55
Other Equip; Chief 54, Utility 52, Fire Prevention Supervisor 72

Chuck (IL-141), our Southern Illinois correspondent, sends along these tidbits;

Creal Springs has a new ESDA base. It's located at the home of Ill State ESDA Director, Erie Jones. The base ID's as "Creal Springs" on the state ESDA freqs of 45.44 and 45.28 with a call sign of KNEN688.

West City PD is now on 154.725 (KNED294). The mobiles ID as "K" units.

Energy PD is also on 154.725 in addition to 39.50. Both have call signs of KNBV972. At present Energy only has ONE police officer!!

INDIANA

Gary (IN-045),our illustrious Railroad editor, passes on this medical-type stuff from his area;

I.H.E.R.N. (Ind Hospital Emergency Radio Network) has been monitored on 155.295. He also states McGann Ambulance Service is on 155.235.

Gary (with a little help from Larry, MI-001) continues with the following list;

42.42	ISP Bremen Base
47.28	Ind Highway Dept-Mobiles
47.36	Ind Highway Dept-Base
151.865	Elkhart Street Dept
153.770	Elkhart VFD
153.950	South Bend FD F2
154.190	South Bend FD F1
154.250	St. Joseph Co VFD
154.280	South Bend FD F3
154.340	RAMPART
154.370	Mishawaka FD
154.430	Elkhart FD
154.755	Ind Tollway Police
155.130	LaGrange Co Sheriff
155.415	Tollway Maint
155.580	Elkhart PD
155.610	Elkhart Co Sheriff-Rural Base to Car
155.655	Elkhart Co Sheriff
155.850	Elkhart Co Sheriff-Rural Car to Base
159.120	Elkhart Co Highway Dept
159.150	St. Joseph Co Sheriff
453.375	Elkhart Water Dept
453.525	Mishawaka PD
453.575	South Bend PD F3
453.625	South Bend PD F2
453.650	South Bend PD F1 (Dispatch)
453.675	South Bend PD F4

Thanks, Gary!

KENTUCKY

Some info next month.

MICHIGAN

From a member who wishes to remain nameless, the lowdown on the Oakland County Prosecutors Office;

155.730	F1	Car/Base (Sheriff Dispatch)
155.970	F2	Car/Car only
155.865	F3	MEPS Statewide

F4 can be any of the following and can be changed occasionally;

154.980	Car/Base (Sheriff Dispatch)
155.505	MSP Channel "Blue"
154.665	MSP Channel "Red"
154.920	MSP Channel "Green"
155.460	MSP Channel "White"

Prosecutor units ID on the County channels as "Car----", "Prosecutor's Car------", or "Prosecutor's Investigator Jones, etc." On the MSP channels, they ID as "Sparrow", "Stork" and other bird names and change them quite frequently.

My informant tells me that there are no portables or scramblers used. He also promises an article on the Oakland County Strike Force.

Thank you, "MR. X"

More from Mich next month.

OHIO

From a non-member(Shame,shame...ed.),through Bill (FL-137) our Public Safety-South East editor, a long overdue contibution;

44.74	Ohio Highway Patrol
44.86	Ohio Highway Patrol
45.02	Ohio Highway Patrol
33.84	Chesapeake FD
154.205	Rome FD
154.040	City of Ironton
39.76	Ironton PD
155.340	Lawrence Co General Hospital
155.160	SE Ohio Medical Svcs
155.340	SE Ohio Medical Svcs
155.175	SE Ohio Medical Svcs
39.26	Lawrence Co Sheriff
39.62	Lawrence Co Sheriff
39.58	Lawrence Co Sheriff
39.66	Lawrence Co Sheriff
47.50	Interstate Emerg. Radio Service
47.62	Interstate Emerg. Radio Service

WISCONSIN

From Tom (WI-006) are some goodies from the Milwaukee area;

460.175	Milwaukee PD F9
155.610R	West Allis PD F1 (156.030 in)
158.880	West Allis PD F2
153.860R	West Allis FD (158.985 in)
453.825	West Allis PW F1
453.725	West Allis PW F2
45.40 R	Milwaukee Metro Sewerage Comm. (45.82 in)

Also from Tom;

Milwaukee County Transit System

	BUSES	SUPERVISORS	
F1	453.850	453.925	
F2	453.675	453.925	Simplex
F3	453.750	453.750	
F4	453.475	453.475	

Port Of Milwaukee

458.0375
458.0625
458.1375
458.1875

And here's a weird one for ya;

458.5375 City Of Milwaukee fire and smoke detector telemetry.(??????.....ed.)

On the WSP front, Tom reports that the change-over to high band by the State Patrol is very slow. So far only Districts 2 (Waukesha) and 8 (Spooner) have made the switch. The freqs are;

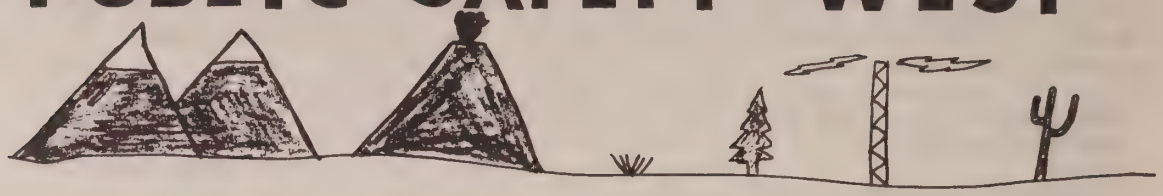
Dist 2	155.445/159.285	F1
Dist 8	154.905/159.450	F1
All Dist.	Simplex on Base Freq.	F2
	151.46	F3
	155.475	F4 (WISPERN)

Tom states there is now a VHF link from Dist 2 to the Mauthe Lake tower site (151.310 out/159.390 back). This has caused the Village of Chenequa Forestry Dept to switch frequencies to 151.250 because of interference.

Thanks alot Tom!

Well gang I think I'm going to cut it off about there for this month. I have to save something for next month. Until then,

PUBLIC SAFETY WEST



Send Public Safety and Special Emergency frequencies, radio system details and questions for Alaska, Arizona, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington and Wyoming to:

George N. Hoggatt, 17473 E. 16th Dr., Aurora, CO 80011

****

Not overwhelmed with input, but at least there is enough to make a decent column for a change. Things are kind of slow around here except for the snow storms every weekend. A couple of notes: my mail is still unsure. Most of it seems to arrive but some is very late. The last issue of this magazine arrived at least a week after everybody else's around here and it was the editors issue mailed a few days earlier than most. Remember that I can't print anything except public safety and special emergency data. I recently received a very good listing of some media frequencies but I can't use it. That sort of thing has to go to the Business, Etc. column. I'll forward it but that makes for a long delay. Now after that little lecture, watch me violate my (actually the clubs) rule later in this very column.

Sometime back, I tried to explain why I couldn't print articles from other publications without permission. I recently read an article on copyright law and what I thought is true. Everything is copyrighted as soon as it is created. This column is copyrighted as I type it. Therefore if you send an article, please try and get permission to reprint it or at least send me the editorial or corporate address with it. Seems like a lot of trouble but it might keep us out of court.

In the March YOUR THOUGHTS is a second letter advocating the printing of members addresses along with their credit for the submission. If you would like to have your address printed, let me know with the submission. Until the club tells me otherwise I will print them only if you specifically say it is ok.

NEW RADIO

Last week I purchased the new Radio Shack PRO–30 hand held unit. I echo Bill Mauldin's reaction in the March issue. Mine has serial number 312197 (purchased at retail). I have given it the acid test by going to downtown Denver on a weekday with it connected to the outside antenna. There is some intermod but not anything like any scanner I have owned before and I have owned a bunch. Most of it can be eliminated with the squelch without cutting out the frequencies desired. At home I compared it to my BC–220 with both on antennas at about the same height and 12 feet apart. The 220 was on a discone and the handheld was on a quarter wave ground plane cut for the low end of the 2 meter amateur band. Under these conditions, the handheld seems to have a bit of an edge on the 220 on sensitivity on air, VHF high and UHF. The handheld would hear Denver Fire units almost 11 miles away when the 220 was just breaking the squelch. Only the stronger signals were useable at that range on both units. The case does seem to be flimsy being all dull black plastic. The keyboard is a big improvement over the BC–100 but the gyrations to do some things is a little frustrating after the Bearcat line. When not searching, the search limits can be used as two extra unscanned frequencies such as the weather broadcasts. Two conditions, the frequency in the second limit must be higher than the first limit and if the first limit is changed, the second is erased. The limits do not have to be in the same band. Battery life (ni–cads) seems to be excellent.

COLORADO

DENVER POLICE Joyce Madden CO–032

As expected, the new Police Chief is starting to make changes. The following is a very brief summary of the plans to be implemented beginning April 1, 1984 over a two year period.

1. An analysis section to spot high crime areas
2. A full time horse patrol in residential areas and parks
3. Expanded foot patrols
4. Reassignment of about 210 Headquarters positions to other Bureaus, Divisions and

districts including transfer of Auto Theft from the Delinquency Control Division to the Investigative Division and consolidation of several units with similar duties
5. A mini-SCAT unit (Special Crime Attack Team) to replace the larger one that was disbanded a few months ago
6. More solo (one officer) patrol cars (see related story last month)
7. New District 4 (southwest) station
8. New Public Information Officer with expanded duties
9. Enhanced 911 emergency call system that can show the address even if the caller hangs up or passes out or can't talk, etc.
10. More delegation of authority. Only the six division chiefs plus the head of the Staff Inspection Bureau will report to the Chief (Staff Inspection is the DPD Internal Affairs equivalent)

The six divisions are:

Division of Investigations (detectives)
Division of Administration
Division of Patrol
Division of Technical Services
Division of Traffic Administration
Juvenile Division

DENVER AMUSEMENT PARKS

(now I break the rule but for a reason, flimsy reason maybe but a reason)

LAKESIDE

This park is also an incorporated town with it's own fire and police departments. Seems silly to show one park without showing both. That's my excuse.

BASE	MOBILE	SERVICE	TYPE	CHAN	NOTES
453.750	458.750	Local Govt	repeater		Town of Lakeside
154.130	154.130	Fire	base-mobile		Town of Lakeside fire
none	457.575	Business	mobile		Lakeside Park Company

ELITCH'S GARDENS

none	154.600	Business	mobile		security
none	469.5125	Business	mobile	1	maintenance
none	469.5375	Business	mobile	2	maintenance
none	469.5625	Business	mobile	3	maintenance

NEW MEXICO

ACOMA PUEBLO TRIBE PD H.H. NM-016

154.845 repeater in, 155.610 repeater out
155.025 and 156.015 other used frequencies
154.875 receive State Police intercity repeater
155.550 F-2 State car to car

LAGUNA PUEBLO TRIBE H.H. NM-016

155.925 repeater in 155.055 repeater out
453.600 in use
154.875 receive State Police intercity repeater
155.550 F-2 State car to car

NEW MEXICO STATE POLICE

F-1 law enforcement net 155.370 input to microwave stations which rebroadcast on 155.550 F-2 state car to car.
F-3 District channel

DISTRICTS	BASE	MOBILE
5,9,4	155.520	155.535
3,12,1	155.565	155.655
2,10,11	155.580	155.685
8,7,6,13	155.790	155.730

F-4 COMMAND NET 154.920
154.875 is the new intercity net repeater located at Mt. Taylor. The following stations have been heard on this frequency: Santa Fe, Gallup, Grants, and Albuquerque State Police Offices, Arizona Department of Public Safety at Flagstaff, the Laguna and Acoma Pueblo Tribal Police.

Many microwave stations are in use throughout the state and some of the district channels which are split may be heard on these microwaves being retransmitted from point to point. In the Grants area, districts 8, 7, 6 and 13 can be heard on 452.300 with both 155.730 and 155.790 being heard on this frequency. {editor note, I'm not sure what he means by microwave. It would seem to refer to UHF. New Mexico has an extensive microwave set up that would appear to be at least in part a control radio/fixed relay system.}

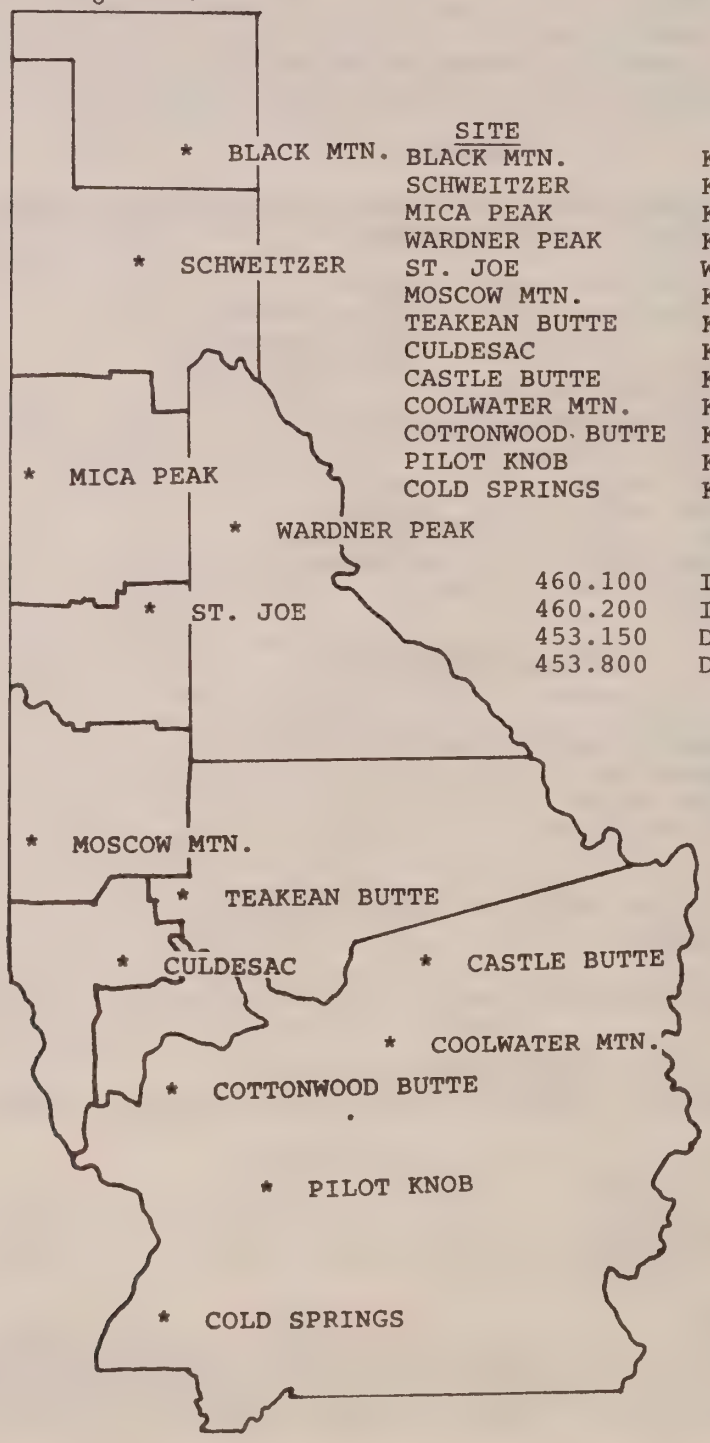
463.075 is the repeater used in the greater Albuquerque area also known as MED-4 for all ambulance to hospital communications.

IDAHO

IDAHO STATE POLICE AND DEPARTMENT OF TRANSPORTATION UHF SYSTEM

Casey Crookham OR-054

These are maps of the UHF repeater sites in Idaho. There are many other VHF sites but these are the ones that the ISP and DOT use for their statewide UHF systems. Most are linked by microwave (more on that later) and mention is often made of these sites when units are in fringe areas.



SITE	ISP	DOT
BLACK MTN.	KRE 378	KWF 764
SCHWEITZER	KRE 394	KVP 690
MICA PEAK	KRE 395	KVP 689
WARDNER PEAK	KRE 384	KWF 765
ST. JOE	WYY 451	KWF 766
MOSCOW MTN.	KRE 383	KXM 914
TEAKEAN BUTTE	KRE 382	KAQ 516
CULDESAC	KRE 395	KWT 642
CASTLE BUTTE	KRE 381	KWT 647
COOLWATER MTN.	KYC 237	KXX 696
COTTONWOOD BUTTE	KRE 379	KVP 688
PILOT KNOB	KXX 295	KZB 284
COLD SPRINGS	KRE 393	KVN 868

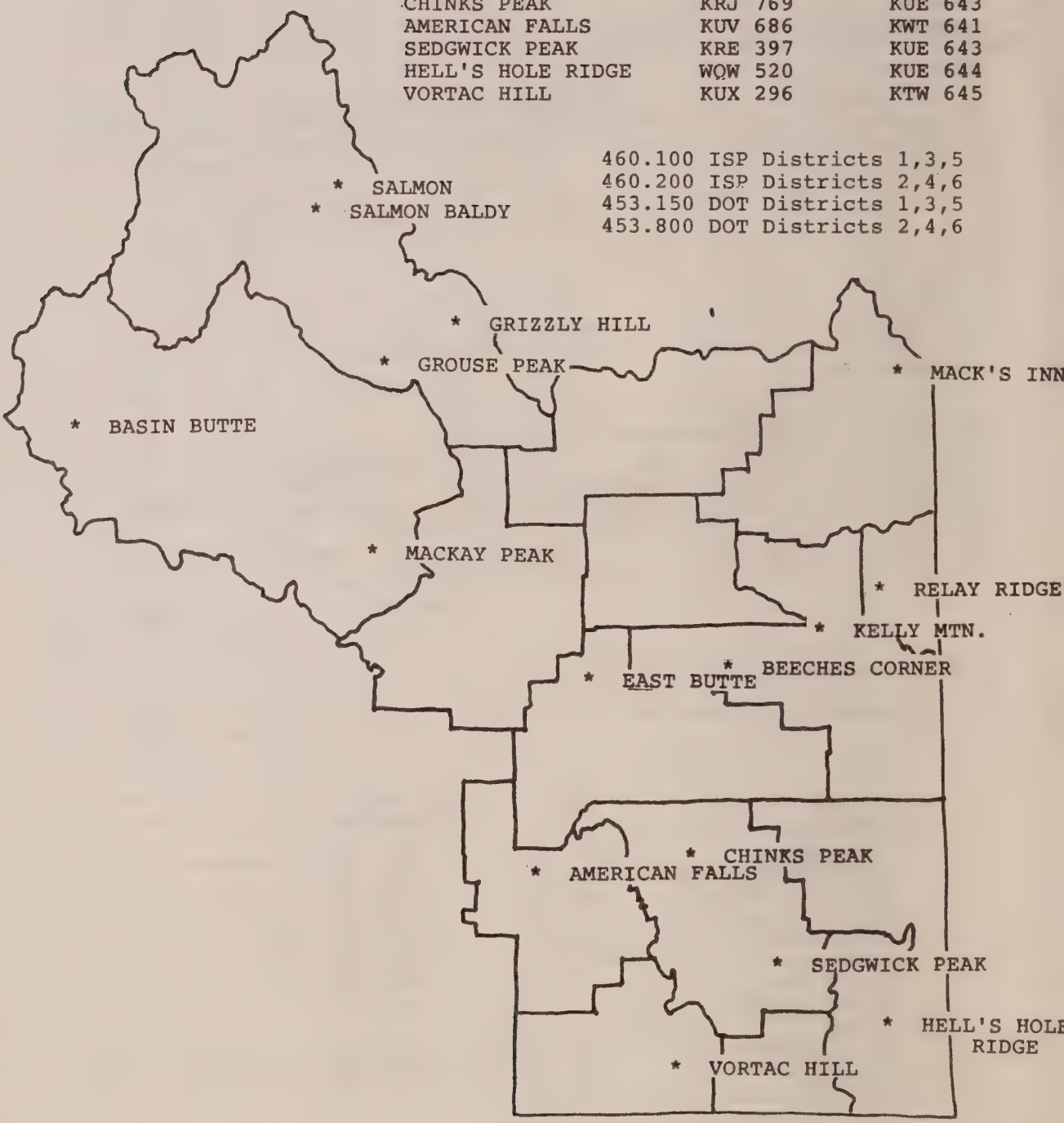
460.100	ISP Districts 1,3,5
460.200	ISP Districts 2,4,6
453.150	DOT Districts 1,3,5
453.800	DOT Districts 2,4,6

SITE	ISP	DOT
BRUNDAGE	-	KWT 646
SNOWBANK	KRE 399	KRE 322
JACKSON PEAK	KVT 800	KVR 960
SHAFFER BUTTE	KRE 400	KRE 321
SHAFFER (DOE PT)	-	KRE 319
LUCKY PEAK	KVT 799	KVR 959
BENNETT MTN.	-	-
DAVIS MTN.	KYU 420	KXX 308
KETCHUM BALDY	KRE 375	KUZ 870
BLISS	KSI 419	-
NOTCH BUTTE	-	KUZ 871
FLATTOP	KRJ 768	KWJ 252
ALBION RIDGE	KRE 387	KUE 262

460.100 ISP Districts 1,3,5
460.200 ISP Districts 2,4,6
453.150 DOT Districts 1,3,5
453.800 DOT Districts 2,4,6

SITE	ISP	DOT
SALMON	-	KVP 695
SALMON BALDY	KRE 376	KVP 694
GRIZZLY HILL	-	KKC 758
GROUSE PEAK	KRE 398	KVN 866
BASIN BUTTE	KUV 687	KVN 867
MACK'S INN	KRE 377	-
MACKAY PEAK	KYW 867	KZE 757
RELAY RIDGE	KSI 412	KVP 692
KELLY MTN.	KOC 495	KKW 209
BEECHES CORNER	-	-
EAST BUTTE	KRE 388	KVP 691
CHINKS PEAK	KRJ 769	KUE 643
AMERICAN FALLS	KUV 686	KWT 641
SEDGWICK PEAK	KRE 397	KUE 643
HELL'S HOLE RIDGE	WQW 520	KUE 644
VORTAC HILL	KUX 296	KTW 645

460.100 ISP Districts 1,3,5
460.200 ISP Districts 2,4,6
453.150 DOT Districts 1,3,5
453.800 DOT Districts 2,4,6



OREGON

OREGON STATE POLICE Andy Ballas OR-018

The State Police use Channel 4 42.860 for car to car in the Portland area.

WASHINGTON

COWLITZ COUNTY SHERIFF Andy Ballas OR-018

New dispatch channel 154.815 with the old channel of 155.370 becoming a new Washington net. Confirms that reported by George DuBois in the March issue.

KING COUNTY AREA MEDIC UNITS Ron Murray CA-VE-013

KING COUNTY AREA MEDIC UNITS

	DISPATCH FREQ.	MED-COMM FREQ.	GEN'L.SERVICE AREA
Medic 1	453.800	463.025	Seattle
Medic 2	460.625	?	Bellevue
Medic 4	154.415	?	Burien-White Center
Medic 5	154.070	463.175	Renton-Tukwila
Medic 6	154.070	463.125	Kent-Auburn
Medic 8	153.950	463.125	Federal Way-Des Moine
Medic 9	154.250	?	Vashon Island
Medic 10	453.800	463.025	Seattle
Medic 16	453.800	463.025	North Seattle
Medic 23	154.400	?	Kirkland-Redmond
Medic 104	154.190	?	Issaquah
Medic 416	153.770	?	North King County

MED-COMM RADIO

FREQUENCY	HOSPITAL	CALLING	CALL SIGN
462.950	Seattle Control (S.F.D. can patch any MED-Comm frequency)	Seattle Control	KQN-948
463.025	Harborview Medical Center	Medic-1 Doctor Trauma Doctor	KUI-661
463.125	Auburn General Hospital	Auburn Doctor	KOP-958
463.175	Valley General Hospital	Valley Doctor	KUI-520

ADDITIONAL FREQUENCIES AND USE

155.340	H.E.A.R. System	Ambulances, aid units, Medic units and all hospitals
453.700	Seattle F.D. "F-3"	Can be accessed by the Medic One doctor at Harborview
40.55	M.A.S.T. Control Fort Lewis	Helicopter rescue/airlift "DUST-OFF 33"
47.50	M.A.S.T.	Air-ground coordination "FIRE COMMAND" "DUST-OFF 33"
155.160	Shepard Ambulance	KWH-567
155.220	" "	" "
155.280	" "	" " Cabulance operations
155.295		

ROCKY MOUNTAIN DIVISION
ARRL

HAM-VENTION
AND CONFERENCE

MAY 25 - 26 - 27 1984

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WELCOME TO THE MAY 1984 ISSUE OF R.C.M.A. PUBLIC SAFETY-CALIFORNIA

Mike took the month off, so the typewriter got placed into my lap. Well, there have been a few changes in my life recently. Some of you may remember that recently I was a store manager for Radio Shack; well, no longer. I am presently trying to get my old job back at

California State University, Long Beach Police Department as a police dispatcher. Hopefully by the time you read this, I will be working there again.

Before I left Radio Shack, a fellow Radio Shack store manager friend of mine made a $6,000 scanner sale to Saudi Arabian Embassy in New York! Nice work, Karen! (I wonder what they will be listening to with 20+ 60 channel scanners! Could be interesting!) ERIC (CA-LA-045)

AND NOW ON TO OUR COLUMN.....

From SKIP (CA-SD-012):

Encinitas Paramedics operations will be on 155.025 MHz. (Former SDSO frequency). This channel change is to alleviate traffic on normal FD freqs. Apparently small cities will use Encinitas Paramedics which is now separate from Encinitas Fire.

San Diego Sheriff is trying to get all of their 453 MHz. mountain top sites to go simulcast. (Similar to method used by CHP in LA Basin).

From MIKE (ID-001):

A recent article in the Los Angeles Times and other papers (plus several news and TV talk shows) made mention of a case in Woonsocket, Rhode Island. In this case, it is said that police made a narcotics arrest due to information heard over a cordless telephone. A neighbor of the bad guys called police when she overheard conversations regarding drug trafficking. Police recorded approx 60 to 100 hours of phone conversations prior to arresting 19 persons. No search warrant for a wiretap was obtained because cordless phones broadcast just above the AM radio band, and can be received by almost any such radio receiver. Ah, no expectation of privacy! It should be interesting to see how the courts rule on this case.

From ART (CA-KE-014):

Art is in need of some information re San Diego Police Department reporting districts (RD's) and district/division boundary lines. He also has questions regarding unit designators/types. He would like to know what a "A" Police Agent is, what a "G" or "George" unit is, and also what a "B" squad is. (Ed. note: In Pasadena PD, an Agent is a police officer (patrol) who is usually called upon for CSI (crime scene investigation), etc. Re: Los Angeles PD, a "B" wagon is the drunk or prisoner transportation van. Sometimes, the same designator may apply to more than one PD. ATTENTION San Diego members: Anyone who is able to assist Art, please write to PS California Editor at the P.O. box. We'll put it in the Newsletter. Thanks, ERIC (CA-LA-045)

From MILT (CA-SD-025):

Milt has contributed several articles from the San Diego area covering several topics. In one article, the Carlsbad Police Department was allocated $30,000 to improve their radio communications system. In the article, it says that due to the city's terrain, communications via hand held radio seldom made it back to the dispatcher. There was even a situation where an officer was in an accident and could not get aid for 30 minutes because he could not communicate.

Another article told of a phantom radio interference source which continued to plague remote control security gates, leaving these gates inoperative. Possible sources of interference ranged from the U.S Navy, a group of electronic "wizards" prowling the city streets and even a Soviet navy trawler 15 miles off the San Diego coast. This phantom interference caused many persons to become stranded as they could not operate their security gates by their remote control. Maintenance crews had to respond to open several gates manually. Is no one safe any where now?! The FCC is checking into the matter.

A third article tells us that Escondido and the Rincon del Diablo (municipal water district) fire departments are going to merge into one fire department to serve both areas. 911 calls will be answered by Escondido FD dispatchers, who will now be dispatching for both Escondido and Rincon units.

Ambulance services in the City of San Diego will now be computerized to assist in response time. Medevac Ambulance company installed the system last October to assist dispatchers in locating the calls' locations (via map book quadrant) and also locate the closest available ambulance to respond.

A mutual aid plan between the Imperial Beach and San Diego Fire Departments began as of March 1, 1984. This plan allows IBFD to hire another fire fighter, and for SDFD to man IBFD stations if IBFD is busy handling a fire or assisting with a fire in the south county areas including San Ysidro.

Four San Diego County hospitals join effort in supporting the Life Flight helicopter service, formerly operated soley by the UCSD Medical Center. Tri-City Hospital in Oceanside, Scripps Memorial in La Jolla and Grossmont District Hospital in East San Diego County will now mutually assist in the Life Flight helicopter program. All hospitals will be linked by land line to the Life Flight communications center at UCSD Med Center.

***** ***** ***** ***** *****

Felix (the robot) joins Los Angeles Police Department. A $61,000 remote controlled robot has been added to the LAPD's arsenal against terrorism. This device, which looks like a small tank with robotic arms, will be used for bomb disposal (hopefully it won't be needed!) at the 1984 Summer Olympic Games in Los Angeles this July and August. Felix will be able to pick up and move suspected bombs, or blow them up with Felix's own shotgun (mounted on one of "his" arms). Approx $800,000 worth of safety equipment which is being purchased by the Olympic committee will become Police Department property after the Olympics.

From ED (CA-RI-013):

Ed comments to us that he feels we should have more reviews of scanner related equipment in the Newsletter. I agree. If anyone will send me FREE of charge, a Regency MX3000, 5000 or 7000, I will be more than happy to write up a review. Just kidding! ERIC (CA-LA-045)

Still more from ED in Riverside:

Riverside County FD station 24 (Cabazon) is now a manned County paid station, 24 hrs. (formerly volunteer only). Upgrade is due to high number of accident calls on I-10 FWY.

Six more firefighters are headed towards Palm Desert to replace the ladder truck that had been dropped from the budget last year.

Riverside FD is going out to bid for 2 new engines in place of one other.

When 911 service is started in Riverside County (hopefully by July 84), calls will be handled by police dispatchers. Cross training of dispatchers is currently under way. Riverside County Communications Center will be the primary 911 answering point; calls will be forwarded/ transferred from there to the proper responding agency(ies).

Still no activity on the new Riverside Police frequency.

-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-=-

From DON (CA-LA-408):

461.15 MHz. (R) Oat Mtn./Santiago Pk.

Motion Picture police/fire coordination frequency. Used by approx. 400 motor officers while doing escorts, etc. Allows for mutual communications, while not tying up regular police frequencies. Most police motorcycle officers participate in this group. This is a good frequency (with good coverage) to monitor during movie events, escorts, etc.

From CHUCK (CA-SC-017):

Re: San Mateo County and CHP coordination on pursuits, etc. , the county can patch the output of their repeater (488.8875 MHz.) directly into the CHP Blue Channel (42.34 MHz.) for simulcasting during pursuits, thus eliminating the middle man. A pursuit ocurred about a week ago (letter dated 2/28/84), involving a deputy. The SMSO turned on the patch and everything was great until it was over-the S.O. forgot to turn OFF the patch! The CHP sent them a reminder!

From ERIC (CA-LA-045):

Re: Los Angeles County Sheriff upgrade of existing 39 MHz. radio system. A lot of changes are going on in the trunks of patrol cars. Many stations are now found on new frequencies. More on this next month when everything is hopefully finished. (DON'T FORGET!! Tour of LASO SRC is scheduled for May 25. BE THERE!)

Rumor has it that San Diego State University Police Department has begun using repeater operations on 153.74 MHz. Any ideas what the mobile input frequency might be? California State University, Long Beach Police Department is now using CLEMARS (154.92 MHz.) as Ch. 2 CSULB PD also has a Radio Shack PRO-2020 programmable scanner w/antenna on roof, to assist in mutual aid communications. New Police Chief there is a former lieutenant from Los Angeles Police Department. CSULB PD will soon be adding a new CLETS terminal plus LAPD's own JDIC system terminal to their arsenal against crime.

From KEN (CA-OR-260):

FIRE DEPARTMENT-City of Orange
Fire Station Listing

F1	46.26	"NET 4" Dispatch	
F2	46.06	Mutual Aid	
F3	46.48	Command & Coordination	
F4	46.42	"	"

Station 1	ENG 1, TK 1, MEDIC 5-1, BC 1	176 S. Grand	Engine 9 is a reserve engine.
Station 2	ENG 2	2900 E. Collins	
Station 3	ENG 3	1910 N. Shaffer	
Station 4	ENG 4	201 S. Esplande	
Station 5	ENG 5, TK 5	1345 W. Maple	
Station 6	ENG 6	3810 W. Chapman	
Station 7	ENG 7	7939 Santiago Canyon Road	

NET 4 is a mutual fire dispatch facility serving Anaheim, Garden Grove, Orange and Stanton Fire Departments.

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ATTENTION FELLOW POLICE & FIRE PATCH COLLECTORS!

Bill Dever of DEVER Communications has quite an assortment of state, federal, and municipal (county & city) shoulder patches at very reasonable prices. DEVER Communications also has an EXCELLENT assortment (at FANTASTIC prices) of the best scanner gear made. He can also provide the popular POLICE CALL books including the awesome Southern California Detail Edition. Write for info. DEVER Communications RT. 2, Box 277, Hot Springs, Ark., 71901

Police Call books 1 thru 9 and the Southern California edition are also available from various other sources including Communications Center, 915 N. Euclid, Anaheim, Ca., 92804. The regional volume only (vol. 1 - 9, depending on your area) is available through most Radio Shack stores, although they can get all vol. 1-9, except So. Cal. edition.

From TOM (CA-LA-475):

Does anyone out there in radio land have any idea what the Los Angeles Airport Police use for Tac 2? (Freq. 1 is 460.525 MHz.) Ed. note: Could it be simplex on 460.525, or even more bizarre: LAPD's own favorite Tac 2 (154.77 MHz.) Anyone knowing, please inform us at PS Ca. Thanks!

From JEFF (ID-010):

Does anyone know the radio frequency used by the Wackenhut Corporation located in Boise, Idaho. Apparently, this company provides security officers for Federal courthouses in that area. Anyone knowing this frequency, please send it to PS Ca. Thanks.

From ROBERT (CA-OR-026):

Here are some hospital frequencies (along with 2 other types) in the Los Angeles/Orange County areas.

1.	155.16 MHz.	KC5310	Woof Search Dog Unit (Is this for real?, ed.)
2.	474.7125	KB2113	Orange County Disaster Kleenup (?)
3.	152.0075	KNGU869	Martin Luther Hospital, Anaheim
4.	453.175	KGY319	Anaheim Memorial Hospital
5.	464.975	KZN896	Centinela Hospital, Inglewood
6.	155.28	KSX238	Century Community Hospital, LA
7.	158.46	KSX959	Westminster Community Hospital

Robert has a suggestion about devoting a section on Olympic frequencies. I'm all for this, let's do it. The easiest and fastest way of getting

any responses is for people to send PS Ca. what you find, and enclose with your freqs., a SASE for a reply list of what freqs. have been accumulated to date. Sound good? Maybe RCMA PS CA can become the UNofficial scanner frequency source for the 1984 Summer Olympic Games. As of March 10, there are only 140 days left until the Games begin! ERIC (CA-LA-045)

+?+

From JERRY (CA-OR-002):

800 MHz for Orange County Fire Department

The following frequencies have been licensed to the OCFD. Presently, only one frequency is in current use right now. It is being used by executive personnel, ie: chief, deputy chiefs, battalion chiefs, etc. Come on Regency, Bearcat & Radio Shack - get your acts together!

Call Sign for all frequencies: WQZ938

856.2125	856.4625	856.7125	856.9625
857. "	857. "	857. "	857. "
858. "	858. "	858. "	858. "
859. "	859. "	859. "	859. "
860. "	860. "	860. "	860. "

Now all we need is a radio to listen to these new frequencies. It is not yet known when or how these frequencies will be used.

From STEVE (CA-SD-011):

As of April 1, 1984, the C.H.P. announced an effort to further alleviate the congestion on its already overloaded channels. The effort included the addition of the following 20 channel pairs and channel designators!

42.4738 B 42.3504 M)	Avocado	42.1914 B 42.1033 M)	Magenta
42.0473 B 42.6569 M)	Burnt Siena	42.2201 B 42.2060 M)	Mahogany
42.3012 B 42.1218 M)	Camouflage	42.1506 B 42.2618 M)	Maroon
42.5020 B 42.4957 M)	Canary	42.8120 B 42.0311 M)	Mauve
42.9626 B 42.7074 M)	Chartreuse	42.0104 B 42.6730 M)	Navy Blue
42.5942 B 42.4792 M)	Cream	42.6360 B 42.1162 M)	Off-White
42.8525 B 42.6047 M)	Ebony	42.3333 B 42.0666 M)	Olive Drab
42.7709 B 42.4188 M)	Egg Shell	42.2527 B 42.6113 M)	Peach
42.3948 B 42.9822 M)	Flesh-tone	42.8307 B 42.3006 M)	Robin's Egg-Blue
42.9081 B 42.5413 M)	Lime	42.9072 B 42.2697 M)	Rose

In the same announcement, the C.H.P. also stated that they had retained a prominent San Francisco area interior designer/decorator to assist in the naming of these and future channel plans.

#

From HUGH (CA-LA-472) (our photo editor):

Add to the list of 800 MHz users:

1. Selective Security (equip. in use at Westwood fire, 1/26/84)
2. Pacific East Air-LAX. F1: 860.8875, F2: 859.8875, F3: 858.8875, F4: 857.8875, F5: 856.8875. Note how each freq. ends in .8875 and are all 1 MHz. appart. (Same way with Orange Co. FD listing elsewhere).
3. 800 MHz. wt's can be identified by the distinctive rubber duck

antenna - it gets smaller about ½ way up. (Nothing like having a miniature microwave oven next to your head - it'l keep you warm!) (Ed.)

More from Hugh:

ABC TV uses 26.39 MHz. for cueing. 24 hour channel 7 audio. Just the thing to hear your soaps on! This is (I think) the only broadcast use of this band in the U.S. (KABC Ch. 7-Los Angeles).

City of Culver City-Radio System

F1	PP	156.090	KMA394	Police	"Control 1"
F2	PL	155.895	KMK256	PD/LG	Mostly bus company
F3	PP	154.92	CLEMARS		Almost continuous use
F4	PF	154.415	KYF285	Fire	"Control"
		155.610		Data	Also South Bay Reg. Comm.
		467.950	S		Hand held simplex
		467.975	S		" " "

Culver City PD uses CLEMARS as a backup and tac channel. Other agencies complain about this.

The windstorm of 1/26/84 did some damage hereabouts. Our ham club's 440 MHz. repeater antenna blew down & will have to be repaired. LA City Fire was giving its companies 7 calls at once - LAPD style. They gave out incident number 2300 sometime before midnight. That's twice normal and a new record. Most calls were wires down into trees and cars. An auto salvage co. nearby burned down. (And they call Chicago the "Windy City"! Ed.)

From ERIC (CA-LA-045):

San Marino PD has applied to CPRA (local APCO) for approval to use their local govt. channel 155.10 MHz. as a mobile input channel for a new repeater system using their existing 156.33 MHz. dispatch channel. SMPD already uses 155.10 MHz. as Freq. 2 (tac). SMPD can be heard communicating with Pasadena PD's air force (PD 1) on SMPD radio. Now I can hear my old home town, in Orange County!

CHP Needles Resident Post has now been upgraded to full status as an area office. Dispatching is by CHP Barstow on the White (42.56).

On a recent RCMA tour of Orange County-John Wayne Airport, members learned of 4 interesting FAA channels in use for air crashes, etc.

F1	172.150 m / 172.950 R	
F2	172.950 S	
F3	172.125 m / 172.925 R	Saddle Peak
F4	172.175 m / 172.975 R	

¢%

Orange County-John Wayne Airport

Frequency	Designation/Usage	Channel
126.8 MHz.	RWY 19R/01L Right runway (long)	Local 1
119.9	RWY 19L/01R Left runway (short)	Local 2
120.8	RWY CTL	Ground
118.0	Clearance Delivery	
109.4	VOR (On field)	
379.9	UHF (Military)	
126.0	ATIS (Telephone 714/546-2279)	ATIS
108.3	Localizer (Ch.20) RWY 19R/01L	
121.85	Emergency Vehicles	
128.35	Helicopter	

When the airport tower is closed, aircraft use 126.8 MHz. for traffic exchange and movement. RWY 19R (right) is for turbine powered and large aircraft over 12,500 lbs. (1500 AGL). RWY 19L (left) is for lightweight aircraft. Several frequencies are simulcasted due to limited staffing during non peak periods.

Airline passenger traffic at John Wayne Airport during 1983 topped all previous records, with almost 2.8 million people travelling via Orange County Airport. 30.462 air carrier operations, 20,008 commuter flights helped to raise that record. Orange County Airport, which was at one time the 2nd BUSIEST airport NATIONWIDE for takeoffs and landings (following only Chicago O'Hare), is soon on its way to regaining its position at # 2. Presently, it ranks 7th or 8th.

Orange County Airport handles 443,933 flights per year (that's 1,216 per day), while nearby Fullerton handled 153,000 last year.

From MIKE (ID-001):

Island Express Helicopter Service (Long Beach to Catalina)

469.85 MHz. 464.85 MHz. 466.05 MHz. 466.025 MHz.

From ERIC (CA-LA-045):

My sources tell me that VERDUGO Fire (Burbank, Glendale & Pasadena) has discontinued the use of mobile printers for dispatching. All dispatches are now voice only on 153.89 MHz., no longer printing away on 46.10 MHz.

Well, it looks like we forgot to cover the Long Beach Gran Prix in last month's issue. I hope you guys & gals out there remembered to check last year's list. Until next time when the control voice takes over control of your Newsletter, HAPPY MONITORING!

Railroads

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad radio system details, and related questions to:

Gary L. Sturm, 1506 W. Hively Ave., Elkart, IN 46517

BELT LINES OF CHICAGO

by GARY (IN-045)

The Chicago area has three major belt or terminal railways. They are the Belt Railway of Chicago, the Indiana Harbor Belt, and the Elgin, Joliet and Eastern.

The Belt Railway of Chicago has its main yard at Clearing in the industrial section of Chicago near Midway Airport on Central. The BRC has 27.16 miles of mainline trackage with a total trackage of 415.90 miles. Their motive power consists of 41 units.

The BRC's radio frequencies are as follows:

160.500	Road and dispatcher
160.380	Yard
160.695	Maintenance of Way
161.445	Police
161.295	Clearing Yard Car Department
160.965	Clearing Yard Hump

The Indiana Harbor Belt Railroad runs from Hammond IN to the north side of the Chicago suburban area. Gibson Yard in Hammond is presently closed due to the downturn in business with the Riverdale IL yard still being open. The Indiana Harbor Belt has 114 miles of mainline with a total of 563 miles of tracks.

The IHB's radio frequencies are as follows:

160.980	Ch 1 Road
161.070	Ch 2 Road
161.400	Maintenance of Way
160.545	Police
160.665	Gibson Yard Hump
161.565	Riverdale Yard Hump

The third belt line of Chicago is the Elgin, Joliet and Eastern Railway running from Waukegan IL to Joliet IL and east to Porter IN. They have 199.80 miles of trackage and 100 locomotives.

The EJ&E's radio frequencies are as follows:

160.350	Road and Dispatcher
160.260	Yard
161.550	Police and Maintenance of Way
161.475/160.725	Car Department

SASKATOON, SASKATCHEWAN

by ROB (CANA-009)

Our Canadian editor, Rob, has come out of the closet and has been showing some interest in scanning the railroad frequencies in Saskatoon! Here is a list of frequencies that he has come up with for the Canadian National and CP Rail in Saskatoon.

CANADIAN NATIONAL RAILWAYS:

161.415	Ch 1 Road, Saskatoon Dispatcher
161.205	Ch 2 Saskatoon Dispatcher (tone access)
160.935	Ch 3 Saskatoon Dispatcher (tone access)
160.665	Ch 4 Yard (inbound and outbound trains)
160.365	Ch 5 Yard Switchmen
160.485/161.295	Ch 6 Yard Engines
159.810/161.055	Ch 7 Yard Engines
161.025	Ch 8 Yard Switchmen
160.785	Ch 20 Maintenance of Way
160.305	Ch 28 Yard Workers
160.515	Ch 34 Yard Workers
161.385	Ch 40 Yardmaster
160.965/160.395	Ch 58 Car Shop
167.010/172.020	Ch 122 Dispatcher Link
49.16	CN Express Trucks

CP RAIL:

161.475	Ch 1 Road, Saskatoon Dispatcher
161.115	Ch 4 Sutherland Yard Office, Saskatoon Dispatcher
160.725	Yard Workers
160.755	Car Shop
160.815	Yard Workers
161.175	Maintenance of Way

GLOSSARY OF RAILROAD SLANG

Contributed by BRIAN (CANA-078)

Over the years the railroad industry has developed its own colorful language. Some of the terms have entered everyday use, such as "side-tracked". Others sound like a foreign language to outsiders. When monitoring railroad radio conversations, slang terms are not heard often, but they are used occasionally. Any list we might print would be incomplete, but here are a few definitions of words you might hear on railroad channels:

ALLEY - Clear track
BEANERY - Railroad eating house
BEND THE IRON - Change the position of a switch
BIG HOOK - Crane used to clean up derailments
BOOMER - The drifting type of railroad man who travels from road to road and stays but a very short time at any one place. The term was derived from the pioneer days of railroad booms along new frontiers and originally was applied to men who followed these boom camps.
BRASS COLLAR - Railroad official
BRASS HAT - Railroad official
BROWNIES - Demerit marks placed against an employee's record
BUGGY - Caboose; passenger car; box car
CAGE - Caboose
CALLER - Employee whose duty it is to call out a train and engine crew
CAR KNOCKER - Car repair man
CAR TOAD - Car repair man
CLOWN WAGON - Caboose

CORNFIELD MEET - Head-on collision between two trains
CRIPPLE - Defective car needing repair
CRUMMY - Caboose
CUPOLA - Observation tower on a caboose
DEADHEAD - Employee riding over the road on company pass or on company business
DETAINER - Train dispatcher
DICK - Railroad detective
DIE ON THE LAW - To reach the 12-hour limit under the hours-of-service law
DOG CATCHER - Crew sent to relieve a crew that has worked 12 hours, the limit allowed by law
DOG HOUSE - Caboose
DRAG - A heavy, slow freight train
DROP - A switching movement where the locomotive is uncoupled from a car while in motion
END MAN - Rear brakeman
FLAT WHEEL - A wheel that has flat spots on the tread; also applied to an employee who limps
FLIMSY - A train order
FLOATER - Same as boomer
FLYING SWITCH - Same as drop
FROG - A device for rerailing cars
GANDY DANCER - Track laborer
GLIMMER - Switchman's lantern
GOAT - Yard engine
GON - Gondola
GREASY SPOON - Railroad eating house
GUM SHOE - Railroad policeman
GUN - Torpedo (an explosive device attached to the rail, used as a warning signal)
HACK - Caboose
HEAD MAN - The brakeman who, on freight trains, rides the engine
HEAD PIN - Same as head man
HIGH IRON - Main line
HOG - Locomotive
HOGGER - Locomotive engineer
HOLE - Passing track where one train pulls in to meet another
HOOK - Wrecking crane or auxiliary
HOT BOX - Overheated journal or bearing
HOTSHOT - A fast train
IN THE HOLE - On a siding
JACK - Locomotive
KING SNIPE - Foreman of track gang
LADDER - The track at the end of a yard from which each individual track leads off
LEVER JERKER - Interlocking tower operator
LIZARD SCORCHER - Cook
MAKING A JOINT - Coupling two cars together
MANIFEST - Fast freight train, usually made up of merchandise and perishables
MARKER - Rear end light or flag
MUDHOP - Yard clerk
NUMBER DUMMY - Yard clerk
NUMBER GRABBER - Car clerk
OLD MAN - Superintendent
ORDER BOARD - A fixed signal to indicate to approaching trains whether to pick up train orders or to proceed
OUTLAWED - A crew that has worked 12 hours, the limit allowed by law
PIG - Locomotive or piggyback flat car
PINHEAD - Brakeman
PLAY BALL - Get busy; get to work; quit fooling
RATTLER - Freight train
RED BALL - Fast freight
RED BOARD - Fixed signal indicating stop
RULE G - Thou shall not drink
RUNTY - Dwarf signal
SHANTY - Caboose
SIDE DOOR PULLMAN - Box car
SKIPPER - Conductor
SMOKE ORDERS - A practice of getting from one station to another without orders, moving along slowly, watching for smoke of an approaching train

Railroads continued

SNAKE - Switchman
SNIPE - Track laborer
STINGER - Brakeman
SUPER - Superintendent
TICKET PUNCH - Pair of pliers
TIE 'EM DOWN - Set the hand brakes
TOAD - Derailer
TRAVELING GRUNT - Road foreman of engines
TRICK - shift; tour of duty
TRIP - The course of a tour of duty from one terminal to another and return
VARNISH - Passenger train equipment
WAYCAR - Caboose
WILLIE - Waybill
Y.M. - Yardmaster

By the time this column reaches you, we will have run out of contributions for future editions. If you have information or data on railroad radio, please send it to us. Until next month, we look forward to hearing from you.

—Gary & Bill

This column is for the exchange of space communications systems (manned or unmanned), frequency information, orbital data, hobby receiving equipment and antennas. Questions and column input pertaining to Space Communications Monitoring should be sent to:

Larry Van Horn (TN-014),1111 N. Carrier Pkwy., B-107, Grand Prairie, Texas 75050.

Welcome to the May, 1984 Space Comm. This month we all celebrate the 2nd Anniversary of this columns rebirth. I hope the third year will continue to show growth in numbers of this phase of the hobby and new monitor enthusiast will start this fascinating hobby of monitoring the space scene.

I've made another interesting discovery recently that I will be sharing this month. So, without further delay on with this month's Space Activity report.

Space Activity Report

05A	BS-2A	1/23 1436.0 0.1 36038 36016 Mission: Japanese Direct Broadcast TV satellite. Xmit freq and power: 11.91928 Ghz. @ 100 W, 11.99600 Ghz. @ 100W, 11.70299 Ghz. @ 0.1 W, and 2276.99 Mhz @ 1.3 W. Launched by National Space Development Agency.
06A	Comsos 1533	1/26 90.3 70.3 380 234 Mission: Military Photo Recon satellite. Xmsn: possible frequency 19994 Khz. Decay: 2/9/84. Launched from Tyuratam on a A-2 rocket.
07A	Cosmos 1534	1/26 94.4 65.8 519 472 Mission: Minor Military satellite. Xmsn: unknown. Launched from Plesetsk on C-1 Rocket
08A	PRC 14	1/29 91.9 30.99 406 343 Mission: Possible geostationary launch failure. This satellite came from a new Chinese launch site. Xmsn: unknown.
09A	US OPS 441	1/31 Current launch elements not available, classified. Mission: Possible Early Warning satellite.
10A	Cosmos 1535	2/2 104.7 82.9 1027 962 Mission: Standard Soviet NAVSAT, Xmsn: 150.000 Mhz.
11A	STS-41B	2/3 90.1 28.4 297 289 Mission: 5 man crew to launch two commercial COMSATs. Xmsn: 2205.0, 2217.5, and 2250.0 Mhz.
12A	US OPS 8737	2/5 Current launch elements not available, classified. Mission: unknown.
12C	JD-1	2/5 Current launch elements not avaiable, classified.
12D	JD-2	2/5 Current launch elements not avaiable, classified.
13A	Cosmos 1536	2/8 97.7 82.5 677 650 Mission: Oceanographic satellite. Xmsn: unknown

14A	Soyuz T-10	2/8	88.6	51.5	228	197	Mission: Manned Soviet mission with 3 man crew to Salyut 7. Xmsn: 20.008 Mhz, 121.750 Mhz. and now the Salyut 7 voice frequency 142.4 Mhz is now active again.
15A	EXOS-C	2/14	97.3	74.4	896	368	Mission: 11th Japanese scientific satellite. Provide comprehensive studies on X-ray astronomy. Xmsn: 136.???, and 400.450 Mhz.
16A	EKRAN 12	2/15	1436	0.1	36000	36000	Mission: Geostationary COMSAT., XMSN: 702 - 726 Mhz, 714 Mhz.
17A	Cosmos 1537	2/16	89.8	82.3	316	221	Mission: Earth Resources Photo Recon satellite, Xmsn: 19992 Khz.*****
18A	Progress 19	2/21	88.7	51.6	262	191	Mission: Soviet Space tanker and supply ship to dock with Salyut 7., Xmsn: 166 Mhz, 922.750 Mhz.
19A	Cosmos 1538	2/21	100.7	74.0	816	781	Mission: Military COMSAT Store/ Dump variety, Xmsn: unknown
20A	Cosmos 1539	2/28	89.6	67.1	365	180	Mission: Another apparent long duration photo recon mission. I have noted almost continuous coverage day for day of these type recons recently. Xmsn: unknown possibly around 240 Mhz. on command only.

New Discovery?

On 2/26/84 I was tuning around the old HF frequencies and at 2252 GMT I noted a two tone FSK type signal on 19992 kHz. A quick check of the NASA prediction bulletins and my Cosmoslocator showed a possible satellite producing the signal was Cosmos 1537.

This satellite was over the horizon (radio) from me so therefore there was no doppler shift noted. I noted that this satellite had just traveled over the PPK tracking station in western Russia. PPK is Petropavlovsk located at 53N and 158.7E.

A couple of conclusions are eveident here. Since this satellite normally transmits it's signal over the Soviet Union someone on the ground goofed and failed to command the HF beacon off. I monitored the satellite as it traveled over the PPK tracking station over the Arctic out over the Atlantic and across the equator over eastern South America. All transmissions were via the whispering gallery mode of propagation.

This is the third time that I have monitored an Earth Resources mission on 19992 kHz. Cosmos 1440 and 1458 were also monitored on very similiar circumstances during their 14 day missions. I am still trying to figure out if there is a pattern to the receptions or Russians drinking to much Vodka at the PPK sites.

Anyone that can shed any light drop me a line and we'll compare notes.

Campaign 84 and Satellites

A recent Av Week editorial discussed a possible campaign issue which could surface this year. Satellite intelligence gathering and arms verification could become a hot political issue this campaign.

It is pretty common knowledge that we have discontinued our KH-8/9 satellite production and are using the KH-11 digital imaging satellites for recon work. This particular satellite was comprimised in the late 70's when a CIA clerk sold a user manual to the Soviets for a reported $3,000. We have since seen a similiar system show up in the Soviet Cosmos system.

The editorial goes on to point out that KH-11 imagery has the advantage of availability in near real time. Sometimes the amagery is good and sometimes it is not so good. The basic matter though is coverage. The article says the U.S. is flying no were near enough to verify an arms control agreement. The adage is simple. If the satellite is not in the right place at the right time, high resolution is academic.

This should be interesting to see if the Demos make this an issue with peace planks in the platform. We could very well see either some new satellites or older ones production start again and an increase in satellite targets to monitor in the very near future.

Japanese Weather Watchers lose GMS-2

The Japanese spacecraft GMS-2 at 140E has been experiencing random difficulties since January 10. GMS-2 lost its imaging capabilities at approximately 0000 GMT on January 21, 1984. The standby spacecraft GMS at 145E was moved ½ degree per

day to replace the operational satellite. GMS began transmitting imaging data at 0600Z on January 27th when it was positioned at 142E. It arrived on station at 140 East on January 31, 1984.

The failure appears to be in the electric drive mechanism that controls the scanning mirror. Since little control fuel remains in GMS-1, the Japanese hope to launch a replace satellite GMS-3 in August of 1984.

WESTAR 6/ PALAPA B-2 Pieces ID'ed

Most of us are keenly aware of the two COMSATs that failed after launch from the STS-41B shuttle mission in January. A check with NORAD gleamed the following information on why the satellites could not be retrieved like the Solar Max Mission did in April. Here is the raw data.

Object	84-11A	STS-41B
	84-11B	WESTAR 6 payload (what was left) 1216 X 301 KM orbit.
	84-11C	IRT Payload 270 X 262 KM orbit. Decay 2/11/84
	84-11D	Palapa B-2 Payload 280 X 271 KM orbit
	84-11E	Palapa B-2 Rocket 1181 X 274 KM orbit
	84-11F	WESTAR 6 Rocket Body 1215 X 306 KM orbit
	84-11G	Debris IRT 249 X 244 KM orbit D2/9/84
	84-11H	Debris IRT 209 X 200 KM orbit D2/12/84
	84-11J	Debris Westar 6 414 X 239 KM orbit D2/9/84
	84-11K-N/P-T	Debris Westar 6 All objects decayed 2/28/84

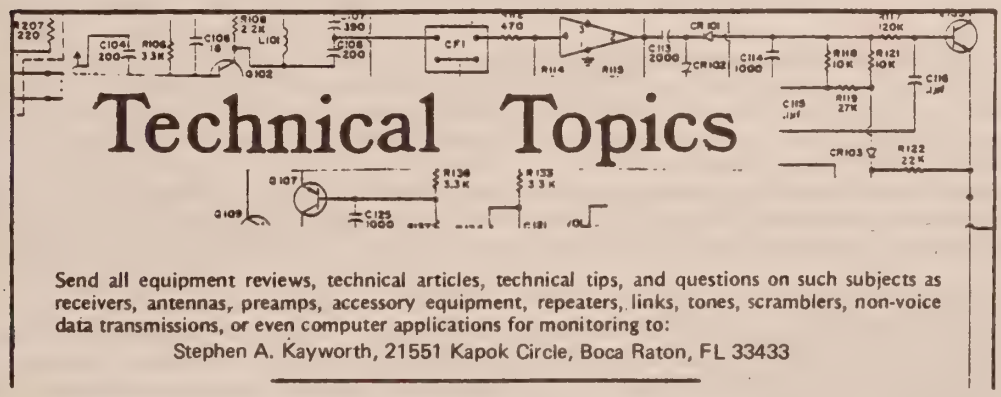
As noted above the WESTAR probably exploded. Alot of debris associated with the satellite was found in orbit. I also noted with interest that the PAM rocket bodies were both floating free from their payloads. To go to geostationary orbit you need one these to get it there.

Early indications are that there was a failure in the perigee motors of the PAM. At any rate the community has suffered the loss of two important COMSATs.

I bring this information up to point out that with a little investigation of the data, monitor hobbyist can figure out alot of information about a particular mission. Similiar techniques are used on Russian mission analysis all the time. It is a very interesting and exciting field to explore. The radio plays a major role in analysis and those beeps aren't just meanless TM's you can't decode.

Well all so much for this month. I hope that there was something in here for everybody and you get the chance to do alittle satellite monitoring. Satellite sleuthing is fun and who knows maybe you will be the next hobbyist to get a call from Uncle Sam and share some of your information to help out the US government.

Till next month, best of 73' and space DX to all.



Technical Topics

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions, or even computer applications for monitoring to:

Stephen A. Kayworth, 21551 Kapok Circle, Boca Raton, FL 33433

THE 'CAT CONCLUDED
-plus-
THE RADIO SHACK PRO-30: A Review

I have been discussing the Bearcat 250 for the past two months. In March I talked about the scanner's built in channel spacing and out-of-band scanning. I continued in April with a discussion about using the auxiliary function. This month I would like to conclude the series with a description of a remote "manual/scan" switch plus some closing remarks about Bearcat 250 problems in general.

The remote "manual/scan" switch, which was submitted by Dean (NJ-155), consists of a switch which is, in effect, placed across, or in parallel with, the manual and scan switches found on the scanner's keypad. The purpose of this switch is to provide a means of stopping and starting the scan function from a location away from the scanner. You may wonder why anyone would want to do this. The way Dean uses it is as follows: He places the remote "manual/scan" switch in another room next to a remote speaker. When he hears something that he wants to know more about, he stops the scanner with the remote switch. He can then go to the scanner and note the frequency, or he can re-start the scan function by using the remote switch again. If you think this would be a handy feature to add to your scanner, then read on. I suggest you read the complete procedure before deciding if you want to attempt this modification.

Dean writes of the mod: (See figures 1 and 2 for locations mentioned in the description, ed)

> The Mod consists of taking 8.4 volts off of IC-207 pin 7 and running it to the remote switch, S201, then running wires from IC-206 pins 7 and 17 to the remote switch. Hook-up the switch as I have it on the picture (figures 1 and 2). At your option, you could place a plug on the back of your scanner (all wires have to be above ground, so use a plug that has at least three pins) so that you can disconnect it and take it mobile. Please use great caution when soldering inside you scanner and do not apply too much heat to the IC's.

The circuit board depicted in figures 1 and 2 is located on the top side near the front of the scanner. To gain access to the interior of the scanner, remove the four screws on the bottom of the case which hold the cover in place and slide the cover off the chassis. Looking down at the interior of the scanner, the board in question will be mounted near the front of the scanner behind the display. The board is approximately 4 X 5 inches. It's not too hard to locate using figure 1 as a guide.

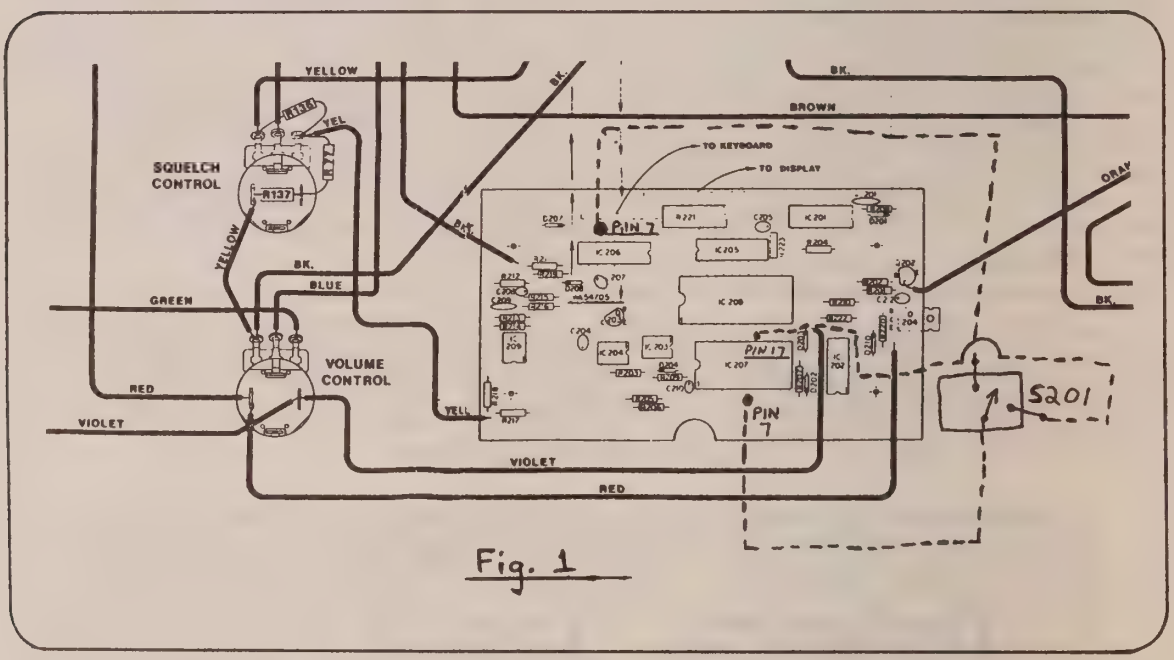


Fig. 1

The switch which Dean uses as the remote "manual/scan" switch is available at Radio shack under part number 275-637. It is described as a "DPDT (double-pole-double-throw) momentary spring return to center off" switch, so if you have one that fits this description, then use it.

A look at figure 2 reveals that pin 7 and 17 of IC-206 are paralleled with the Manual (MA) and Scan (SC) buttons respectively. Notice also that pin 7 of IC-207 is parallel with 8.4 volts. The switch that has to be added to complete this mod connects to these three points. When the switch, S201, is held in one position, it operates the manual function, and when it is in the opposite position, it operates the scan function. In this way, the scanner can be made to step through all 50 channels one at a time, or it can be made to stop and re-start scanning at will.

Dean makes a very important point regarding the use of a plug on the back of the scanner to connect to the remote switch. It is imperative that none of the three wires touch the scanner's chassis in any way. With this in mind, be sure that the plug you choose is capable of satisfying this requirement. Looking through the Radio Shack catalog, I spotted a plug and jack combination that should work just fine. You can mount a 4 pin mic jack, RS P/N

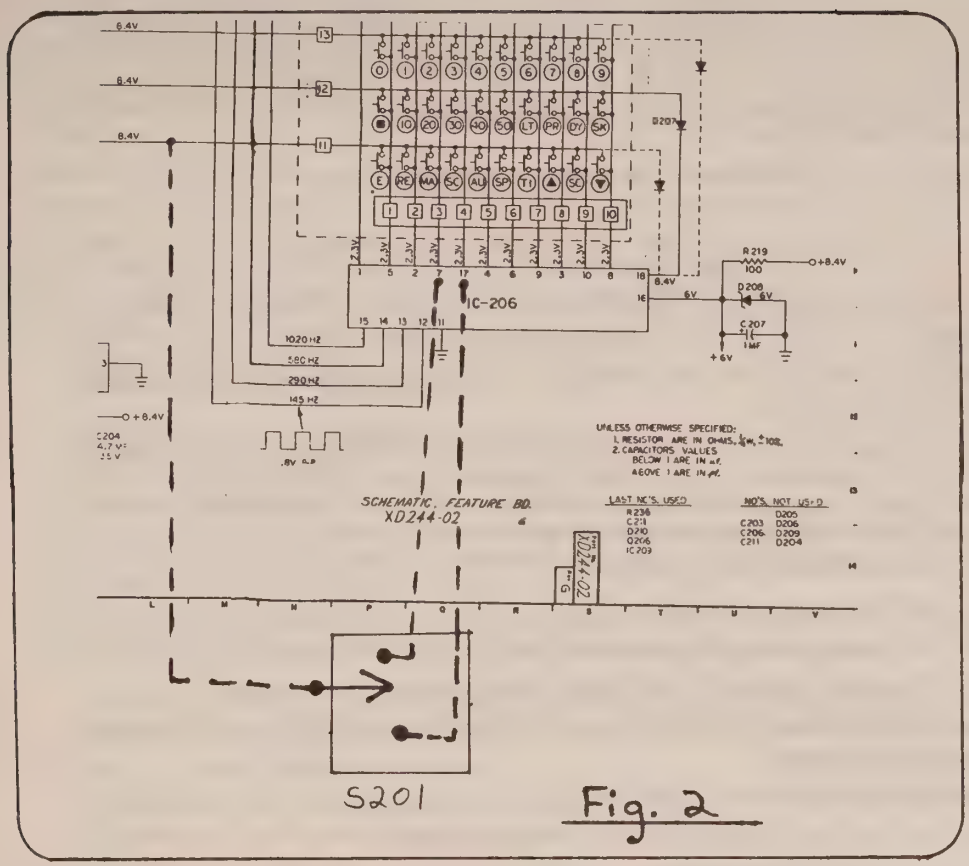


Fig. 2

274-002, on the back panel of the scanner, and you can use a 4 pin mic plug, RS P/N 274-001 to plug into the jack. One of the 4 pins will not be used.

Dean said that I should check with Bearcat before printing this information to make sure that it wouldn't damage anything in the scanner. I didn't really need to check with Bearcat because I knew what their answer would be. I am sure they would not condone doing this mod, but Dean states that he has been using it for over two years with no problems. Never-the-less, whenever you do something like this to your scanner, there is always the chance that something will be damaged. For this reason, I strongly recommend that you **DO NOT** try this mod unless you are very skillful with a low wattage pencil soldering iron. As I have said before, I am not trying to discourage anyone from trying something new, but sometimes the harm that can inadvertently be done in performing a mod is often not worth the advantage gained by the mod itself. If you feel confident and would like to have this added feature on your Bearcat 250, then give it a try. Good luck and let me know how you do.

Final Comments:

I have become aware that I am not the only one who has had problems with the 'Cat. At times, my display will go completely blank except for a decimal point in the very far right portion of the display. When the scanner is in this mode, I can still operate the squelch knob and get noise but no other functions work. I have to turn the scanner off for a period of time to get it to come back to life. Also, I often have to unplug the power cord before it will begin to operate again. At other times, the display will go completely blank and I won't be able to hear anything on the scanner. These are the major problems that I have had. When the scanner is working, it does a fine job, and I still think it is one of the most versatile scanners on the market for the money.

If any of you have had similar problems, or any other problems, that you have been able to solve, please write and share your experiences with me. I am sure that the many readers who own the Bearcat 250 would appreciate knowing some of your solutions. I would also like to thank those of you who have written with additional information about the BC-250. I will compile it all into a follow up article in the near future.

****

Radio Shack's PRO-30

The following review was written and sent to me by Bob Parnass (IL-267). Bob first presented this review at the Chicago area RCMA chapter and was kind enough to send me a copy to be

shared with the rest of the RCMA membership. Also, I had the opportunity to "bench check" one of these units belonging to Bill (FL-137), our "Public Safety Southeast" editor. Bill loves to have his radios checked out once in a while just to make sure they're still working up to par, so that gave me a good excuse to visit with Bill and check his PRO-30 too. The following information should be of interest to those of you who now own or who plan to own a PRO-30. Bob's review follows:

Robert S. Parnass, AJ9S
Naperville, Illinois

I recently purchased a Radio Shack PRO-30 synthesized handheld scanner. Here are some details:

- Price: $300.
- Batteries are not included. The PRO-30 requires 3 "hearing aid type" batteries for memory retention and 6 AA batteries.
- Frequency coverage is fixed. The manual states: "In case you're wondering, the tuning range of your PRO-30 is permanently stored in the microprocessor chip. There's no way it can be extended or altered - even by a skilled electronics technician. So if you try to enter a frequency not in the PRO-30's tuning ranges, you'll get an error message every time!"
  - 30 - 54 (includes entire 6 meter ham band)
  - 108 - 136 (AM commercial aircraft band)
  - 138 - 174 (includes some military frequencies below the 2 meter ham band)
  - 380 - 512 (several military and "secret" US government frequencies in this range)
- Semiconductor components: 1 LSI microprocessor, 1 LSI PLL chip, 3 CMOS chips, 5 other chips, 39 transistors, and 75 diodes!
- Selectivity: +-9 KHz @ 6 db., +-15 KHz @ 50 db.
- Scanning rate: Fast = 10 channels/second, Slow = 5 channels/second.
- IF frequencies: 10.7 MHz and 455 KHz.
- Current drain (not including memory backup cells): 55 mA squelched, 100 mA unsquelched at full volume.
- Priority Sampling: 2 seconds.
- BNC antenna connector. A multi band semi-flexible antenna is supplied.
- The case is plastic, with a hinged, spring loaded belt clip on the rear. The inside of the case has been sprayed with some type of gold colored RFI shielding material.
- The keyboard buttons are made of a rubber type material, that compress slightly when depressed. An audio tone is used to confirm key depression.
- Three pushbutton switches on the top of the unit duplicate functions on the front mounted keypad:
  a. Scan
  b. Manual
  c. Speed

  This allows the user to manipulate these functions while the scanner is worn on the belt.
- The PRO-30 is made in Japan by GRE, the same company that makes Radio Shack's crystal controlled scanners.
- The owner's manual contains a block diagram, but no schematic. I am told that a service manual, with schematic, will be available for sale. The owner's manual contains a list of "birdies."

New Product Notes: Radio Shack PRO-30 Scanner

Some early impressions:

- The scanner works quite well.[1]
- The instruction manual is pretty good, although a schematic should be included.
- The scanner is bigger than the Bearcat BC-100. No leather case is available to protect the PRO-30, so the scanner could be "bruised" in heavy service.
- The LCD display contains several status indicators, including a low battery warning message.[2] The display is quite crisp and clear in bright light, and when the internal dial light is activated. It is difficult to read under low lighting conditions and at various angles, a characteristic of LCD technology.

- Striking a key does not always actuate the desired function. If a key is struck off center, the rubber key top compresses without actuating the switch mechanism. The user is made aware of this situation when no audio tone is heard after a key depression.

  A nice aspect is that the keyboard is less prone to damage if it is struck against the corner of a desk.

- Sensitivity on UHF is at least as good as the several crystal controlled portable scanners I've aligned, maybe even better!

- In Search mode, scanning will stop only when the radio is tuned to a station's center frequency. A "window detector" circuit[3] prevents lock up on adjacent frequencies.

- The internal construction looks decent. There are two printed circuit boards in the radio, connected via a multi pin connector rather than messy wiring harnesses. The component designations (e.g. R102, C212, etc.) are printed on the board. Resistors are 1/8 watt and mounted vertically. Layout appears clean, not overcrowded.

- The priority scan feature works well and uses a "reasonable" algorithm, like that used in most Bearcat and Regency scanners.[4]

- Audio output circuitry uses the LM386 audio amplifier chip, producing about 220 milliwatts of audio power out.[5] This is a bit on the weak side if your using the scanner in a truck, or wearing it in a noisy situation without benefit of an earphone or external, clip-on lapel speaker. The audio is crisp and clean, without synthesizer noise.

- The 2nd IF, FM detector and squelch circuitry is implemented using a Motorola MC3357 IC, now quite common in scanners.[6]

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1. The PRO-30 being reviewed is one of the first available in the northern Illinois area. Early models of complex radio equipment from other companies have been plagued by several problems. Examples are the Drake TR-7 transceiver, the Bearcat BC-100 and BC-300 scanners, and the Collins KWM-380 transceiver.
2. The user is also warned of failing batteries by a audio alarm.
3. A similar circuit is found in certain Bearcat synthesized models, such as the BC-250. The original patent for this circuit is assigned to General Research Electronics (GRE), as are several other scanner patents.
4. The algorithms used in most Japanese 2 meter ham radio transceivers, discussed in a previous article, are not very useful to American amateurs.
5. The LM386 is also used in the PRO-24 crystal controlled handheld scanner, reviewed in a previous article. In both models, the speaker element is only rated for 100 milliwatts.
6. The squelch function works quite well and is not plagued by the hysteresis problem found in the PRO-24.

The Bench Test:

Bill and I performed three tests on his PRO-30 scanner. The first was a check of the sensitivity. In all cases, we found the sensitivity to be as good as or better than the specs shown in the front of the owners manual. The results of our test are as follows:

Frequency	Sensitivity
30-54 MHz	.15 microvolts
108-136 MHz (AM)	24 db S/N at 2 microvolts
138-174 MHz	.50 microvolts
380-512 MHz	.60 microvolts

Sensitivity within any band tended to be consistent throughout that whole band, varying by only a couple of hundreths of a microvolt - not worth mentioning. Both Bill and I were quite pleased with the results of this test. These sensitivity figures are very acceptable and confirm Bob's findings.

The second test we performed was the squelch sensitivity test. To do this, we set the squelch control just beyond the threshold. We then increased the signal generator output until the squelch opened again. The results of this test follow:

Frequency	Squelch sensitivity
30-50 MHz	.38 microvolts
138-174 MHz	.38 microvolts
380-512 MHz	.40 microvolts

The .38 microvolt figure for Low Band (30-54 MHz) does not seem logical to me, in retrospect, since the 20 db quieting point is well below that figure (.15 microvolts). I think that I should have readjusted the squelch a little closer to the threshold for the low band squelch threshold test. Otherwise, these figures are acceptable.

For our final test, Bill and I checked the modulation acceptance of the PRO-30. This test is performed by injecting a signal, modulated with a 1000 Hz tone, into the receiver. The level of the 1000 Hz tone is then increased until the receiver can no longer hear it. It is at this point that the signal deviates beyond the "pass band" of the receiver. Noting the deviation setting on the signal generator at the point that the 1000 Hz tone can no longer be received will give you a rough indication of the receiver's modulation acceptance. We found it to be about ±10 kHz. Note that this figure roughly corresponds to the ±9 kHz selectivity figure that Bob reported in his review. This is normal since modulation acceptance is directly related to the receiver's selectivity.

Although I did not have a lot of time to spend with the PRO-30, my first impression is favorable. I agree with Bob that the audio is "crisp and clean." The operation of the squelch is good. It reminds me of the squelch operation of a good commercial quality handi-talkie. In general, I liked to PRO-30. I'm sure I would enjoy the use of this scanner on a regular basis.

I would like to extend my thanks to Bob Parnass (IL-267) for his review and to Bill Mauldin (FL-137) for the use of his PRO-30.

Until next month,

Steve, FL-183, WA4WNE

VHF Marine

Send information, articles, frequencies and their use, and questions that relate to private, commercial, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 424 W. 22nd St., Norfolk, VA 23517

Hello and welcome to your May VHF MARINE MONITORING COLUMN.The mail is still slow and I need your help.

I have just sent out my yearly inquiries to the various Coast Guard Districts for updates on information.So far the First & Third Districts have responded.I would like to hear from anyone having information on the Coast Guard and/or their services and units or persons to contact.In writing this column this information is needed.

Here are the uses of the various Coast Guard small boats.

44' - Motor Lifeboat - Used primarily in inlets & in extreme weather conditions.Equipped with fire fighting and dewatering systems.These boats are very rugged and are self righting.

41' - Utility Boat - - All purpose craft.For use in confined waters and some are equipped to fight fires.Most often used in search & rescue work.

32' - Port & Waterways Boat - Used in harbor patrols,search & rescue, environmental protection and all are equipped to fight fires.

30' - Motor Surfboat - The newest Coast Guard Boat.Used for rescue work in all sea conditions and has high speed and will operate in shallow water.

The Coast Guard also uses 16,17,21,22,24,& 26 foot boats also.

In the upcoming months you will hear a lot of these boats involved in their various missions.The main frequencies that these boats will use are:

Ch. 16 (156.800) - Emergency Channel - Calling & Distress.
Ch. 21 (157.050) - Coast Guard Group Working Channel,
Ch. 22 (157.100) - Coast Guard-Civilian Vessel working channel and Marine/Weather Broadcast Channel.
Ch. 23 (157.150) - Coast Guard Group Working Channel.
Ch. 81 (157.075) - Coast Guard Group Working Channel and Marine Safety/Environmental Channel
Ch. 83 (157.175) - Coast Guard Group Working Channel and Coast Guard Auxiliary Working Channel(in some areas).

VHF Marine continued

On the above channels you will hear the shore stations talking to their small boats and the small boats talking to each other and on channel 16 & 22 you will possibly hear the vessels in distress.These channels can hold some very interesting listening.
Some secondary channels that the Coast Guard uses are Ch.6 (156.300), Ch. 12 (156.600),Ch. 13 (156.650) & Ch. 14 (156.700).

From Reed(AL-022) comes the following information.The FCC is going to crack down on Marine Radiotelephone Abuse.The four major problem areas are:

1) An increase in the use of profanity on the air
2) Failure to use the proper call signs
3) A number of Coast Stations using unauthorized frequencies reserved for vessels.
4) An increase in the abuse of Channel 16

The FCC promises that more enforcement can be expected in order to protect the integrity of the marine radio telephone system and insure its availability,to boaters,for emergency use.

Oregon-Washington Area Coast Guard Information:

Broadcast Schedule:(Marine Information/Weather)

Group Astoria,Or. - 157.100 (0533 & 1733 GMT)
Group Port Angeles,Wa. - 157.100 (0651 & 1815 GMT)
Group North Bend,Or. - 157.100 (0603 & 1803 GMT)
Group Seattle,Wa. - 157.100 (0630 & 1830 GMT)
Group Portland,Or. - 157.100 (1745 GMT)

Coast Guard Cutters to listen for:

USCGC Polar Sea (Ice Breaker) - Seattle,Wa.
USCGC Polar Star (Ice Breaker) - Seattle,Wa.
USCGC Boutwell (High Endurance Cutter) - Seattle,Wa.
USCGC Mellon (High Endurance Cutter) - Seattle,Wa.
USCGC Citrus (Medium Endurance Cutter) - Coos Bay,Or.
USCGC Yocona (Medium Endurance Cutter) - Astoria,Or.
USCGC Resolute (Medium Endurance Cutter) - Astoria,Or.
USCGC Bayberry (Small Inland Buoy Tender) - Seattle,Wa.
USCGC Bluebell (Large Inland Buoy Tender) - Portland,Or.
USCGC Iris (Seagoing Buoy Tender) - Astoria,Or.
USCGC White Bush (Coastal Buoy Tender) - Astoria,Or.
USCGC Point Bennett (82' Patrol Craft) - Port Townsend,Wa.
USCGC Point Countess (82' Patrol Craft) - Port Angeles,Wa.
USCGC Point Doran (82' Patrol Craft) - Everett,Wa.
USCGC Point Glass (82' Patrol Craft) - Gig Harbor,Wa.
USCGC Point Richmond (82' Patrol Craft) - Anacortes,Wa.

All of the above Coast Guard Vessels Guard VHF Channels (13)156.650, (14)156.700 and (16)156.800 when underway.

Various Marine Listings:(Portland,Or.)

Wilmette Yacht Club - KZJ-355 - 156.425,156.800
Portage Marine,Inc. - WQZ-230 - 156.425,156.800
Seaward Yacht Sales - WQZ-491 - 156.425,156.800
Waynes Marine Service - KEA-976 - 156.425,156.450,156.800
Rodgers Marine Electric - KTD-560 - 156.425,156.450,156.800
Columbia River Yacht - WHF-785 - 156.425,156.600,156.800

Various Marine Listings:(Seattle,Wa.)

City of Seattle - KJA-441,442,445,438 - 156.650,156.800
City of Seattle - WQZ-232 - 156.5,157.05,157.075,157.1,156.8
City of Seattle - KSK-285 - 156.800
Fremont Tugboat Co. - KMC-912 - 156.950,156.800
Washington State Ferries - KTD-487 - 156.950,156.800
Washington State Ferries - KUF-682 - 156.950,156.800
Western Towboat - WQB-532 - 156.800,157.025
Deep Sea Fisheries - WQZ-258 - 156.800,156.950

VHF Marine continued

Next month I will have a follow up report from San Francisco from Jim(CASF-030) with some of his loggings.

If your area has not been covered - maybe no one has sent in information on your area. Drop me a line with info on your area.

Well that's it for this month - 73's till next month

SEND IN INFORMATION

RCMA

• NEW MEMBERS LIST •

3 13 1984

CACCC27 SCHUPPENHAUER, DONALL;321 EASTMAN;HAYWARD, CA 94544
CALA569 COLEMAN, JAMES;11817 S. SINGLATON DRIVE;LA MARADA, CA 90638
CALA570 LASSMAN, MARK;5460 WHITE OAK AVE F-201;ENCINO, CA 91316
CALA571 PHILLIPS, ROBERT;4600 VIA MARINA -206;
MARINA DEL REY, CA 90292
CALA572 MAHOOD, MITCH;1562 GATES AVE;MANHATTEN BEACH, CA 90266
CAOR272 OPPENHEIM, MARK KLEKG;17871 CARRANZA LN;
HUNTINGTON BEACH, CA 92647
CAOR273 CROW, RICHARD E;2414 N. TUSTIN AVE H14;SANTA ANA, CA 92705
CAOR274 NEWCOMBE, DAVID W;31232 CALLE SAN PEDRO;
SAN JUAN CAPISTRANO, CA 92675
CAOR275 RAMOS, DAN;19201 CLENSON, CIRCLE B;
HUNTINGTON BEACH, CA 92648
CASBC61 QUINN, JOHN;56636 PINTE TRAIL;YUCCA VALLEY, CA 92287
CASCC45 REECE, WM. K.;P.O. BOX 9946;SACTO, CA 95823
CASDC65 PETTIT, GREG;224 A RANCHO DRIVE;CHULA VISTA, CA 92011
CASNC09 SLUCHAK, JAN* ADDRESS WITHHELD BY REQUEST
CAVE028 O'BRYAN, PATRICK;1728 TOWNLEY CIRCLE;SIMI VALLEY, CA 93063
CT 084 MCBRIDE, JAMES;48 ANTHONY ST;JEWETT CITY, CT 06351
CT 085 RICHARDS, CHRISTOPHER E;66 SINCLAIR ST;WINDSOR, CT 06095
MA 145 ANGELO, MIKE;84 CENTER ST;LEE, MA 01238
MA 146 STUDLEY, ROBERT E;2CC BEDFORD RD APT 25E;WOBURN, MA 01801
MD 086 MUMFORD, DAVID JOHN;258 GOLF COURSE RD;OCEAN CITY, MD 21842
MI 137 STOCKING, JOHN;23580 COACHLIGHT DR;SOUTHFIELD, MI 48075
MI 138 MULL, SUSAN M;2563 DANIELS RD RT 1;STANFORD, MI 48657
NC C57 WILLIS, G.C.;602 BRIDGES ST;MOREHEAD CITY, NC 28557
ND C04 REISS, KEN;2605 S 17TH ST;GRAND FORKS, ND 58201
NY 281 STURM, MICHAEL B;7 MILES PLACE;STATEN ISLAND, NY 10314
NY 282 DUBRAVE, RICK A;P.O. BOX 67;MARATHKON, NY 13803
NY 283 BRICK, J. RONALD;301 SARATOGA RD;SNYDER, NY 14226
PA 200 BLAZEJEWSKI, EDWARD III;135 MAYOCK ST;WILKES-BARRE, PA 18705
PA 201 CARRON, L. PETER JR;205 RIDGEWOOD ROAD;EASTON, PA 18042
PA 202 DOLACK, RICHARD A JR;830 W. SPRINGFIELD RD D-5;
SPRINGFIELD, PA 19064
TX 144 BYRNES, SCOTT* ADDRESS WITHHELD BY REQUEST
TX 145 WRZESINSKI, THADDEUS;1516 WITHERS;FT WORTH, TX 76105
TX 146 KETCHUM, RICKY;505 N 7TH ST APT 214;AUSTIN, TX 78701
WA 057 CALKINS, ROBERT D;9710 5TH AV NE 304;SEATTLE, WA 98115
WI 070 JULIN, JAMES;338 S. 15TH AVE;STURGEON BAY, WI 54235

MEMBERSHIP CARDS AND BADGES

RCMA has no badges, decals, or membership cards for sale or distribution. The label on your newsletter is your membership card. While other clubs may have gimmicks or commercial good deals, our 'good deal' is your newsletter. You determine its content because you write it.

MAILING PROCEDURES

The newsletter mailed each month has a cover date for the following month. This practice is followed so that the US Post Office can deliver your issue no later than the first of the month designated on the cover.

New members whose applications are received before the end of the month will begin receiving the newsletter the following month. The first issue will be dated the month after that — as described above.

RENEWAL PROCEDURES

The date printed after the membership number on your newsletter mailing label shows the last month of your current membership. It is important to renew your membership by that date, as promptness on your part ensures uninterrupted delivery of the newsletter.

Renewal checks and new membership applications received by RCMA's General Manager, P.O. Box 542, Silverado, CA 92676, are processed for deposit on a weekly basis. Actual computer updating is done at the end of each month. Therefore, it is possible that your check or money order can be received — and even deposited — and your next issue will contain the statement "renewal overdue" on the mailing label. This simply means that your renewal was received after the cut-off date for runnning updated mailing labels.

PRORATED MEMBERSHIPS

Due to postage costs and other considerations, membership applications or renewals for any sum less than the current rate are prorated accordingly. This means that the renewal date will be due in less than a year. Please do not send more money to finish the year; just renew when your prorated date comes up.

Also because of postage costs, RCMA cannot comply with member requests to supply back issues free of additional charge (see the monthly Calendar section regarding ordering of back issues). If a late renewal results in a missed issue, the newsletter can be ordered from RCMA's secretary.

ADDRESS CHANGES

MEMBER notifications of address changes are also updated at the end of each month. If this type of address change notice arrives after the cut-off date, the mailing label will not reflect the new address until the following month.

The newsletter is mailed 3rd class under a bulk mail permit. When a member's address change is supplied by the POST OFFICE (instead of by the member), the charge to the club is 25¢. Although this fee is supposed to include forwarding of an issue to the new address, the result is often simply a return of the issue to P.O. 4563. The message is clear: when you move, notify RCMA yourself. Don't wait for the Post Office to do it.

SPECIAL FREQUENCY REQUESTS

Get in touch with your local RCMA group (see monthly Calendar section for chapter listings) or use the Contact/Information Wanted column for frequencies in your area. RCMA is not yet set up for national distribution of frequencies, although ultimately, the 'big picture' could include copies of the FCC and IRAC data bases, a fast computer, and software to select and sort in any order.

Contributions of frequencies and other material must be sent to the appropriate newsletter editor. (Editors use their own discretion in printing material sent them by non-members.) Data sent to P.O. Box 4563 is always subject to delay and sometimes cannot be forwarded because of postage costs.

DISCLAIMER

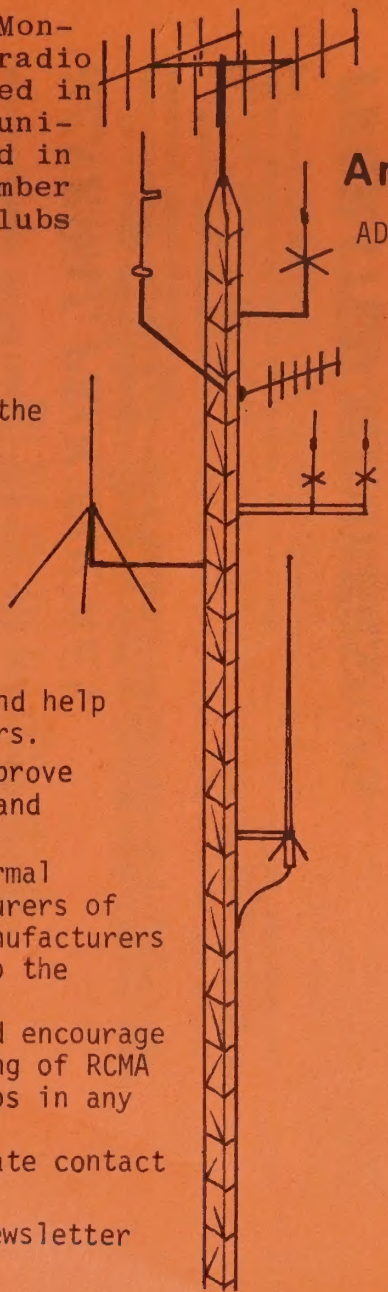
RCMA is a non-profit club for scanner enthusiasts. Neither RCMA or its newsletter are affiliated with, participate in the management of, or are responsible for, any other organization or publication. This disclaimer includes application to POLICE CALL, an annual publication put out by RCMA's good friend Gene Hughes. Queries about this publication cannot be answered by RCMA.

PLEASE REMEMBER — When writing to RCMA for any reason, include your membership number. Use it on your correspondence, checks, or money orders. RCMA tries hard to be responsive to your questions/problems. Using your membership number when you write helps us be of help to you.

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.



RCMA
P.O. Box 4563
Anaheim, CA 92803

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